Wabamun Lake Oil Spill August 2005:

Data Report For Water And Sediment Quality In The Pelagic Area Of The Lake (August 4-5 to September 15, 2005)

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Data Report for Water and Sediment Quality in the Pelagic Area of the Lake (August 4-5 to September 15, 2005)

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EXECUTIVE SUMMARY

On August 3, 2005, petroleum hydrocarbons spilled into Wabamun Lake following the derailment of 43 CN rail cars along the north shore of the lake, near the village of Whitewood Sands. The oil slick spread rapidly into the pelagic portion of the lake, but in the week following the spill, strong westerly winds and resulting wave action ensured that much of the oil drifted to the north, east and south-east shoreline.

This report provides a summary of the chemical data (extractable and volatile priority pollutants, PAH, and trace metals) collected from water and sediments in the pelagic zone of the lake on the days and weeks following the spill.

- The oil slick spread rapidly over the eastern and south-east portion of the lake, but in the week following the spill, strong westerly winds and wave action ensured that most of the oil drifted to the shoreline. Overall, water and sediments in the open water area of the lake were not contaminated with spilled hydrocarbons. Only very low levels of BTEX and some PAHs were detected occasionally.
- Results from the Paul Band site indicated some low-level water volatile hydrocarbon contamination that could possibly be related to recovery operations along the shoreline and/or wind patterns that may have resulted in the transport of hydrocarbons on the water surface to that area.
- Hydrocarbons contained by a boom that had become unanchored were well in excess of guidelines for the protection of aquatic life. Potential escape of oil towards the open water represents an ongoing risk to water quality and aquatic life.
- There was no post-spill evidence of an increase in water and sediment metal concentrations.

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The Analytical Chemistry Laboratory, Alberta Research Council, Vegreville conducted the chemical analysis of water and sediment samples under the supervision of Grant Prill (Trace Organics Laboratory) and Frank Skinner (Inorganic Chemistry Laboratory).

Doreen LeClair and Bridgette Halbig (Environmental Monitoring and Evaluation Branch) assisted in data management and report preparation.

1.0 INTRODUCTION

On August 3, 2005, petroleum hydrocarbons spilled into Wabamun Lake following the derailment of 43 CN rail cars along the north shore of the lake and near the village of Whitewood Sands (Alberta Environment 2005 a). Monitoring of water quality and aquatic biota was initiated by Alberta Environment (AENV) in the main body of the lake on August 4-5, 2005, at sites outside the apparent influence of spilled oil to obtain background or pre-spill data. This sampling was focused on the pelagic zone of the lake (the 'open water' area), as opposed to shoreline/littoral areas. Follow-up sampling was begun on August 11, and continued weekly until mid-September 2005, at several sites within and outside the area of known oil occurrence.

Preliminary results of trace organics analyses on water samples were published on September 2, 2005 (Alberta Environment 2005 b). This document provides a compilation of results of chemical analyses for water and sediment from the pelagic zone, and highlights the major findings. Information on phyto- and zooplankton communities in the pelagic and littoral area of the lake will be documented separately.

In addition to the sampling program carried out in response to the hydrocarbon spill, the long-term monitoring program on Wabamun Lake was maintained. This program provides additional water chemistry (e.g., nutrients, major ions) and biological (phyto and zooplankton community data, and chlorophyll-*a*) information. This information is not included in the present data report, but provides further relevant background for a detailed, longer-term assessment of spill effects.

2.0 METHODS

2.1 Sampling Methods

Samples were collected from sites shown in Figure 1 and Table 1, by monitoring staff from Alberta Environment, Northern Region, with the assistance of limnologists from Central Region and Monitoring and Evaluation, Environmental Assurance Division. These sites and many others were part of intensive surveys carried out on Wabamun Lake in 2002 (Anderson 2003 a and b), and the 2002 site labelling has been retained to facilitate comparisons in the data sets.

Although the detailed composition of the spilled material was not known at the time the sampling was initiated, it was apparent that petroleum hydrocarbons were of primary concern. Hence much emphasis was placed on the measurement of hydrocarbons in water and sediments, in an attempt to describe their occurrence and distribution in the lake's open water. Metals can be associated with petroleum hydrocarbons, and they were monitored in water and sediments. Field measurements of temperature, dissolved oxygen, pH, conductivity and light penetration were carried out routinely.

2.1.1 Water Chemistry

Most water samples for chemical analyses were collected just under the water surface, because that is the location of greatest interest in relation to the surface oil slicks. Trace organic samples were collected directly in sample bottles, opened and filled at a depth of approximately 40 cm from all sites and dates shown in Figure 1. One litre amber glass bottles were used for extractable priority pollutants (EPP scan) and polycyclic aromatic hydrocarbons (PAH scan), and 100 mL vials for volatile priority pollutants (VPP scan). Water samples for metal analysis were also collected as subsurface samples. This is unlike much of the previous metal sampling of Wabamun Lake where samples for metal analyses were taken 0.5 m above the lake bottom (e.g., Casey 2003, Anderson 2003 a). Quality assurance samples included replicate grabs, field blanks, and trip blanks on several dates. All water samples were kept in coolers with icepacks until their arrival at ARC, the morning following sampling. A water quality multi-probe and a light meter (Li-Cor® underwater quantum sensor) were used to measure pH, temperature, conductivity, DO, redox potential and light intensity at one-meter interval and up to 0.5 m above the sediments, at sites 4-3, 10-3 and, on August 11 at 18-2. Euphotic depth was defined, as the depth where 1% of near-surface light intensity occurred. Sampling procedures followed methods outlined in AENV (2002).

Appendix 1 documents sampling locations, dates and types of samples collected.

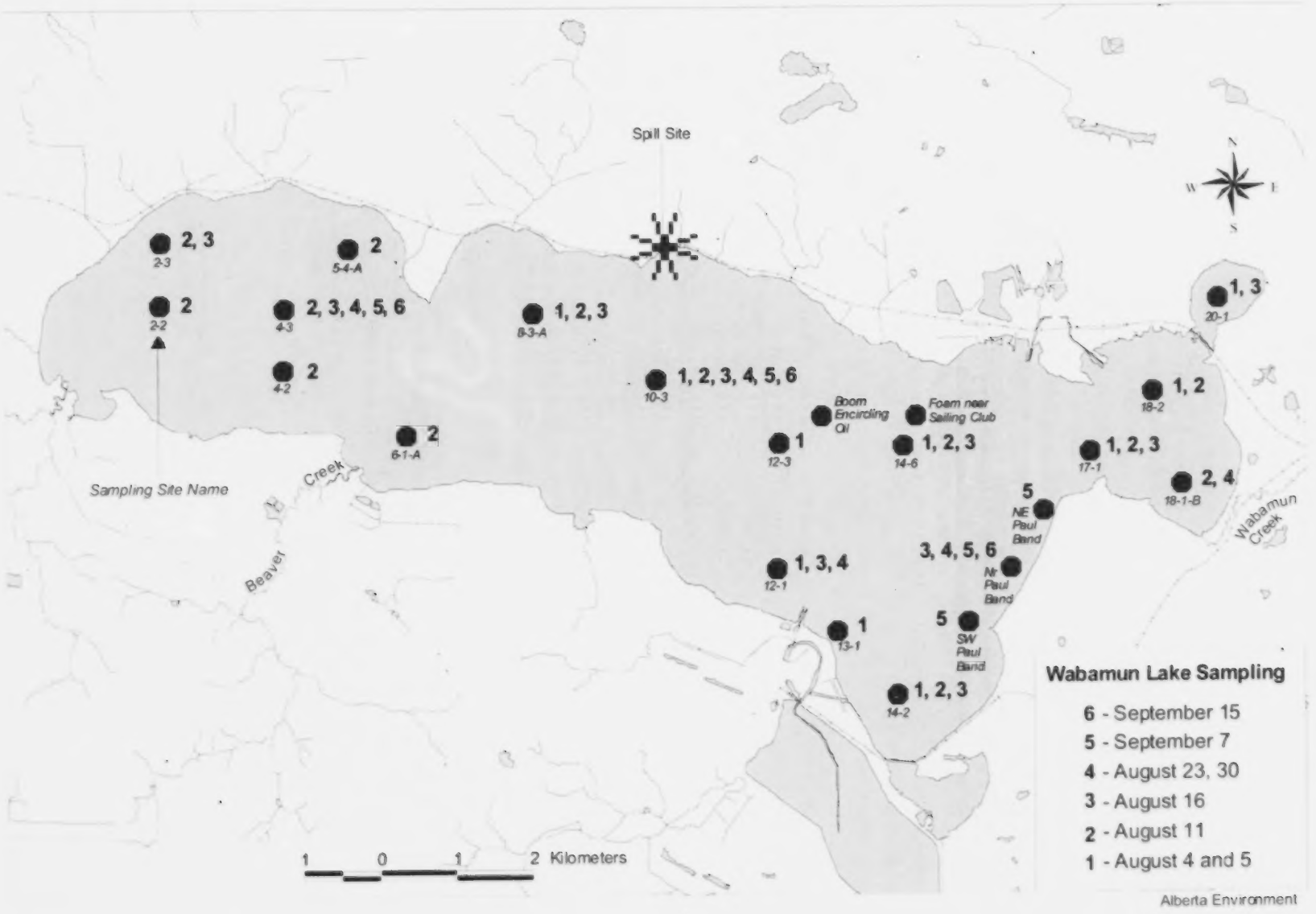

Figure 1 Wabamun Lake 2005 – sampling sites with site name and sampling schedule

Table 1 Wabamun Lake 2005 sampling sites

Site Name	Latitude	Longitude
	in Decimal Degrees	
Pelagic Sites		
Wabamun Grid 2-2	53.561670	114.706110
Wabamun Grid 2-3	53.570830	114.705560
Wabamun Grid 4-2	53.552220	114.676390
Wabamun Grid 4-3	53.561110	114.675830
Wabamun Grid 5-4-A	53.569720	114.660280
Wabamun Grid 6-1-A	53.542500	114.646670
Wabamun Grid 8-3-A	53.560000	114.615560
Wabamun Grid 10-3	53.550280	114.585830
Wabamun Grid 12-1	53.522780	114.557220
Wabamun Grid 12-3	53.540830	114.556390
Wabamun Grid 13-1	53.513610	114.542780
Wabamun Grid 14-2	53.504170	114.528330
Wabamun Grid 14-6	53.540280	114.526110
Wabamun Grid 17-1	53.539170	114.480830
Wabamun Grid 18-1-B	53.534220	114.458560
Wabamun Grid 18-2	53.547780	114.465280
Wabamun Grid 20-1	53.561110	114.449170
North East Paul Band	53.530800	114.492410
Near Paul Band	53.522490	114.500520
South West Paul Band	53.514600	114.511030
Boom Encircling Oil	53.544760	114.545990
Foam near Sailing Club	53.544730	114.522890

2.1.2 Sediment Sampling

All sediment samples were collected with a stainless steel Ekman grab on August 4-5 and August 16, 2005 (Figure 1). The top 3-5 cm of sediment from the centre of the grab were scooped up with a plastic (metal analysis) or stainless steel (trace organics analysis) spoon and transferred to appropriate sample containers (large plastic zip lock bags for metals, and 50 mL glass vials for trace organics), either directly (volatile priority pollutants), or after thorough mixing in an appropriate container. The surficial sediments in direct contact with the inner wall of the Ekman were transferred to a large plastic bag and reserved for total organic carbon (TOC) and particle size analysis. All samples are composites of at least five Ekman grabs from each site, except for VPP samples taken on August 4-5 that were from a single grab.

As part of QA/QC measures, three split sediment samples, obtained from a well-mixed sediment sample, were analyzed for trace organics. Samples were kept in coolers with icepacks until their arrival at the Alberta Research Council, Vegreville (ARC) the morning following collection. Appendix 1 documents the dates, sites, and types of samples that were collected.

2.2 Laboratory Analyses

2.2.1 Trace Organic Compounds

All trace organics analyses were carried out at the Trace Organics Laboratory, Alberta Research Council, Vegreville. Analyses are by GC/MS (EPP, VPP) and GC/MS SIM (PAH). CCME hydrocarbon phases were also reported on water samples. The list of compounds analyzed and their method detection limits is provided in Tables 2a (water) and 2b (sediments).

EPP and VPP were analyzed on all water samples. The PAH (polycyclic aromatic hydrocarbon) scan comprises the same compounds as analysed in the EPP scan, but at lower detection limits. Detection limits for the EPP scan on water are sufficiently low to detect trace PAH levels (Grant Prill, pers. comm.) and the PAH scan was only applied to select samples as an assurance that all PAHs present had been reported.

For sediments, detection limits of the EPP scan are too high to detect trace levels of PAH, hence the PAH scan was performed on all sediment samples; results of the PAH scan were also needed to provide data that matched 2002 sediment data from Wabamun Lake. EPP, VPP, and PAH were analyzed on August 4-5 samples, but VPP were not measured on August16 samples because it was considered highly unlikely that volatile compounds would be present in sediments (Grant Prill, pers. comm.).

Table 2a Valid method variable codes and detection limits for trace organic compounds in water

VMV	Variable	Detection Limit (µg/L)	VMV	Variable	Detection Limit (µg/L)
	Volatile Priority Pollutants			**Extractable Priority Pollutants**	
95226	TOLUENE	0.1	100744	DI-N-BUTYL PHTHALATE	0.1
100407	XYLENE	0.1	100748	BIS(2-ETHYLHEXYL) PHTHALATE	0.1
95234	M- + P-XYLENE	0.1	100745	DIETHYL PHTHALATE	0.1
95221	ETHYL BENZENE	0.1	100723	PHENANTHRENE	0.1
95233	O-XYLENE	0.1	100743	BUTYLBENZYL PHTHALATE	0.1
100656	1,2,4-TRIMETHYLBENZENE	0.1	100720	FLUORENE	0.1
100397	TRIHALOMETHANES	0.1	100709	ACENAPHTHENE	0.1
95200	BENZENE	0.1	100722	NAPHTHALENE	0.1
95208	CHLOROFORM	0.1	100711	ANTHRACENE	0.1
95222	METHYLENE CHLORIDE	2	100698	4-CHLORO-3-METHYLPHENOL	0.1
100649	NAPHTHALENE	0.1	100699	2-CHLOROPHENOL	0.2
100657	1,3,5-TRIMETHYLBENZENE	0.1	100700	2,4-DICHLOROPHENOL	0.1
100634	BROMOBENZENE	0.1	100701	2,4-DIMETHYLPHENOL	0.2
100635	SEC-BUTYLBENZENE	0.1	100702	2-METHYL-4,6-DINITROPHENOL	0.1
100636	TERT-BUTYLBENZENE	0.1	100703	2,4-DINITROPHENOL	0.1
100637	N-BUTYLBENZENE	0.1	100704	2-NITROPHENOL	0.1
100638	2-CHLOROTOLUENE	0.1	100705	4-NITROPHENOL	0.1
100639	4-CHLOROTOLUENE	0.1	100706	PENTACHLOROPHENOL	0.1
100640	1,2-DIBROMO-3-CHLOROPROPANE	0.3	100707	PHENOL	0.1
100641	1,2-DIBROMOETHANE	0.1	100708	2,4,6-TRICHLOROPHENOL	0.1
100642	CIS-1,2-DICHLOROETHENE	0.1	100710	ACENAPHTHYLENE	0.1
100643	2,2-DICHLOROPROPANE	0.1	100712	BENZO(A)ANTHRACENE	0.1
100644	1,3-DICHLOROPROPANE	0.1	100713	BENZO(B)FLUORANTHENE	0.1
100645	1,1-DICHLOROPROPYLENE	0.1	100714	BENZO(K)FLUORANTHENE	0.1
100646	HEXACHLOROBUTADIENE	0.3	100715	BENZO(G,H,I)PERYLENE	0.2
100647	ISOPROPYLBENZENE	0.1	100716	BENZO(A)PYRENE	0.1
100648	P-ISOPROPYLTOLUENE	0.1	100717	CHRYSENE	0.1
100650	N-PROPYLBENZENE	0.1	100718	DIBENZO(A,H)ANTHRACENE	0.5
100651	1,1,1,2-TETRACHLOROETHANE	0.1	100719	FLUORANTHENE	0.1
100652	1,2,3-TRICHLOROBENZENE	0.1	100721	INDENO(1,2,3-C,D)PYRENE	0.1
100653	1,2,4-TRICHLOROBENZENE	0.1	100724	PYRENE	0.1
100654	TRICHLOROETHYLENE	0.1	100725	2-CHLORONAPHTHALENE	0.1
100655	1,2,3-TRICHLOROPROPANE	0.1	100726	HEXACHLOROBENZENE	0.1
95201	DICHLOROBROMOMETHANE	0.1	100727	HEXACHLOROBUTADIENE	0.5
95202	BROMOFORM	0.5	100728	HEXACHLOROCYCLOPENTADIENE	0.1
95203	BROMOMETHANE	0.1	100729	HEXACHLOROETHANE	0.5
95204	CARBON TETRACHLORIDE	0.1	100730	1,2,4-TRICHLOROBENZENE	0.1
95205	CHLOROBENZENE	0.1	100731	BENZIDINE	0.2
95206	CHLOROETHANE	0.1	100732	2,4-DINITROTOLUENE	0.1
95207	2-CHLOROETHYLVINYLETHER (2-CHLOROETHOXYETHYLENE)	0.4	100733	2,6-DINITROTOLUENE	0.1
95209	DIBROMOCHLOROMETHANE	0.1	100734	1,2-DIPHENYLHYDRAZINE	0.1
95210	DIBROMOMETHANE	0.1	100735	NITROBENZENE	0.1
95211	1,2-DICHLOROBENZENE	0.1	100736	N-NITROSODIPHENYLAMINE	0.1
95212	1,3-DICHLOROBENZENE	0.1	100737	N-NITROSO-DI-N-PROPYLAMINE	0.2
95213	1,4-DICHLOROBENZENE	0.1	100738	4-BROMOPHENYL PHENYL ETHER	0.1
95214	1,1-DICHLOROETHANE	0.1	100739	BIS(2-CHLOROETHOXY) METHANE	0.1
95215	1,2-DICHLOROETHANE	0.1	100740	BIS(2-CHLOROETHYL) ETHER	0.1
95216	1,1-DICHLOROETHYLENE	0.1	100741	BIS(2-CHLOROISOPROPYL) ETHER	0.1
95217	TRANS-1,2-DICHLOROETHENE	0.1	100742	4-CHLOROPHENYL PHENYL ETHER	0.1
95218	1,2-DICHLOROPROPANE	0.1	100746	DIMETHYL PHTHALATE	0.1
95219	CIS-1,3-DICHLOROPROPENE	0.3	100747	DI-N-OCTYL PHTHALATE	0.1
95220	TRANS-1,3-DICHLOROPROPENE	0.3	100749	ISOPHORONE	0.1
95223	STYRENE	0.1	102608	MTBE (METHYL TERTIARY BUTYL ETHER)	0.1
95224	1,1,2,2-TETRACHLOROETHANE	0.1	103632	2,3,4,6-TETRACHLOROPHENOL	0.1
95225	TETRACHLOROETHYLENE	0.3			
95227	1,1,1-TRICHLOROETHANE	0.1			
95228	1,1,2-TRICHLOROETHANE	0.1			
95229	TRICHLOROFLUOROMETHANE	0.1			
95232	VINYL CHLORIDE	0.5			
	Polycyclic Aromatic Hydrocarbons				
103146	ACRIDINE	0.01	103151	BENZO(C)PHENANTHRENE	0.01
103144	ACENAPHTHENE	0.01	103152	BENZO(E)PYRENE	0.01
103145	ACENAPHTHYLENE	0.01	103153	BENZO(G,H,I)PERYLENE	0.01
103160	FLUORENE	0.01	103154	CHRYSENE	0.01
103162	NAPHTHALENE	0.01	103155	DIBENZO(A,H)PYRENE	0.01
103163	PHENANTHRENE	0.01	103156	DIBENZO(A,I)PYRENE	0.01
103142	3-METHYLCHOLANTHRENE	0.01	103157	DIBENZO(A,L)PYRENE	0.01
103143	7,12-DIMETHYLBENZ(A)ANTHRACENE	0.01	103158	DIBENZO(A,H)ANTHRACENE	0.01
103147	ANTHRACENE	0.01	103159	FLUORANTHENE	0.01
103148	BENZO(A)ANTHRACENE	0.01	103161	INDENO(1,2,3-C,D)PYRENE	0.01
103149	BENZO(A)PYRENE	0.01	103164	PYRENE	0.01
103150	BENZO(B,J,K)FLUORANTHENE	0.01	103761	RETENE (7-ISOPROPYL-1-METHYLPHENANTHRENE)	0.01

Valid Variable Method or VMV codes are from the Federal ENVIRODAT dictionary maintained by Environment Canada

Table 2b Valid method variable codes and detection limits for trace organic compounds in sediments

VMV	Variable	Units	Detection Limit
	Volatile Priority Pollutants		
80480	1,1,1,2-TETRACHLOROETHANE	ug/g	0.1
80481	1,1,1-TRICHLOROETHANE	ug/g	0.1
80482	1,1,2,2-TETRACHLOROETHANE	ug/g	0.1
80483	1,1,2-TRICHLOROETHANE	ug/g	0.1
80484	1,1-DICHLOROETHANE	ug/g	0.1
80485	1,1-DICHLOROETHYLENE	ug/g	0.1
80486	1,1-DICHLOROPROPYLENE	ug/g	0.1
80487	1,2,3-TRICHLOROBENZENE	ug/g	0.1
80488	1,2,3-TRICHLOROPROPANE	ug/g	0.1
80489	1,2,4-TRICHLOROBENZENE	ug/g	0.1
80490	1,2,4-TRIMETHYLBENZENE	ug/g	0.1
80491	1,2-DIBROMO-3-CHLOROPROPANE	ug/g	0.3
80492	1,2-DIBROMOETHANE	ug/g	0.1
80493	1,2-DICHLOROBENZENE	ug/g	0.1
80494	1,2-DICHLOROETHANE	ug/g	0.1
80495	1,2-DICHLOROPROPANE	ug/g	0.1
80496	1,3,5-TRIMETHYLBENZENE	ug/g	0.1
80497	1,3-DICHLOROBENZENE	ug/g	0.1
80498	1,3-DICHLOROPROPANE	ug/g	0.1
80499	1,4-DICHLOROBENZENE	ug/g	0.1
80500	2,2-DICHLOROPROPANE	ug/g	0.1
80501	2-CHLOROETHYLVINYLETHER (2-CHLOROETHOXYETHYLENE)	ug/g	0.4
80502	2-CHLOROTOLUENE	ug/g	0.1
80503	4-CHLOROTOLUENE	ug/g	0.1
80504	BENZENE	ug/g	0.1
80505	BROMOBENZENE	ug/g	0.1
80506	BROMODICHLOROMETHANE	ug/g	0.1
80507	BROMOFORM	ug/g	0.5
80508	BROMOMETHANE	ug/g	0.1
80509	CARBON TETRACHLORIDE	ug/g	0.1
80510	CHLOROBENZENE	ug/g	0.1
80511	CHLOROETHANE	ug/g	0.1
80512	CHLOROFORM	ug/g	0.1
80513	DIBROMOCHLOROMETHANE	ug/g	0.1
80514	DIBROMOMETHANE	ug/g	0.1
80515	ETHYL BENZENE	ug/g	0.1
80516	HEXACHLOROBUTADIENE	ug/g	0.3
80517	ISOPROPYLBENZENE	ug/g	0.1
80518	MTBE (METHYL TERTIARY BUTYL ETHER)	ug/g	0.1
80519	METHYLENE CHLORIDE	ug/g	2
80520	NAPHTHALENE	ug/g	0.1
80521	STYRENE	ug/g	0.1
80522	TRIHALOMETHANES	ug/g	0.1
80523	TETRACHLOROETHYLENE	ug/g	0.3
80524	TOLUENE	ug/g	0.1
80525	TRICHLOROETHYLENE	ug/g	0.1
80526	TRICHLOROFLUOROMETHANE	ug/g	0.1
80527	VINYL CHLORIDE	ug/g	0.5
80528	XYLENES(O,M,P)	ug/g	0.1
80529	CIS-1,2-DICHLOROETHENE	ug/g	0.1
80530	CIS-1,3-DICHLOROPROPENE	ug/g	0.3
80531	M- + P-XYLENE	ug/g	0.1
80532	N-BUTYLBENZENE	ug/g	0.1
80533	N-PROPYLBENZENE	ug/g	0.1
80534	O-XYLENE	ug/g	0.1
80535	P-ISOPROPYLTOLUENE	ug/g	0.1
80536	SEC-BUTYLBENZENE	ug/g	0.1
80537	TERT-BUTYLBENZENE	ug/g	0.1
80538	TRANS-1,2-DICHLOROETHENE	ug/g	0.1
80539	TRANS-1,3-DICHLOROPROPENE	ug/g	0.3

VMV	Variable	Units	Detection Limit
	Extractable Priority Pollutants		
80427	1,2,4-TRICHLOROBENZENE	ug/g	2
80428	1,2-DIPHENYLHYDRAZINE	ug/g	2
80429	2,3,4,6-TETRACHLOROPHENOL	ug/g	2
80430	2,4,6-TRICHLOROPHENOL	ug/g	2
80431	2,4-DICHLOROPHENOL	ug/g	2
80432	2,4-DIMETHYLPHENOL	ug/g	4
80433	2,4-DINITROPHENOL	ug/g	2
80434	2,4-DINITROTOLUENE	ug/g	2
80435	2,6-DINITROTOLUENE	ug/g	2
80436	2-CHLORONAPHTHALENE	ug/g	2
80437	2-CHLOROPHENOL	ug/g	4
80438	2-METHYL-4,6-DINITROPHENOL	ug/g	2
80439	2-NITROPHENOL	ug/g	2
80440	4-BROMOPHENYL PHENYL ETHER	ug/g	2
80441	4-CHLORO-3-METHYLPHENOL	ug/g	2
80442	4-CHLOROPHENYL PHENYL ETHER	ug/g	2
80443	4-NITROPHENOL	ug/g	2
80444	ACENAPHTHENE	ug/g	2
80445	ACENAPHTHYLENE	ug/g	2
80446	ANTHRACENE	ug/g	2
80447	BENZIDINE	ug/g	4
80448	BENZO(A)ANTHRACENE	ug/g	2
80449	BENZO(A)PYRENE	ug/g	2
80450	BENZO(B)FLUORANTHENE	ug/g	2
80451	BENZO(G,H,I)PERYLENE	ug/g	4
80452	BENZO(K)FLUORANTHENE	ug/g	2
80453	BIS(2-CHLOROETHOXY) METHANE	ug/g	2
80454	BIS(2-CHLOROETHYL) ETHER	ug/g	2
80455	BIS(2-CHLOROISOPROPYL) ETHER	ug/g	2
80456	BIS(2-ETHYLHEXYL) PHTHALATE	ug/g	2
80457	BUTYLBENZYL PHTHALATE	ug/g	2
80458	CHRYSENE	ug/g	2
80459	DI-N-BUTYL PHTHALATE	ug/g	2
80460	DI-N-OCTYL PHTHALATE	ug/g	2
80461	DIBENZO(A,H)ANTHRACENE	ug/g	5
80462	DIETHYL PHTHALATE	ug/g	2
80463	DIMETHYL PHTHALATE	ug/g	2
80464	FLUORANTHENE	ug/g	2
80465	FLUORENE	ug/g	2
80466	HEXACHLOROBENZENE	ug/g	2
80467	HEXACHLOROBUTADIENE	ug/g	5
80468	HEXACHLOROCYCLOPENTADIENE	ug/g	2
80469	HEXACHLOROETHANE	ug/g	5
80470	INDENO(1,2,3-C,D)PYRENE	ug/g	2
80471	ISOPHORONE	ug/g	2
80472	N-NITROSO-DI-N-PROPYLAMINE	ug/g	4
80473	N-NITROSODIPHENYLAMINE	ug/g	2
80474	NAPHTHALENE	ug/g	2
80475	NITROBENZENE	ug/g	2
80476	PENTACHLOROPHENOL	ug/g	2
80477	PHENANTHRENE	ug/g	2
80478	PHENOL	ug/g	2
80479	PYRENE	ug/g	2

	Polycyclic Aromatic Hydrocarbons		
10532	NAPHTHALENE	ng/g	1
10535	ACENAPHTHYLENE	ng/g	1
10536	ACENAPHTHENE	ng/g	1
10537	FLUORENE	ng/g	1
10538	PHENANTHRENE	ng/g	1
10539	ANTHRACENE	ng/g	1
10540	ACRIDINE	ng/g	1
10541	PYRENE	ng/g	1
10542	FLUORANTHENE	ng/g	1
10543	RETENE (7-ISOPROPYL-1-METHYLPHENANTHRENE)	ng/g	1
10544	BENZO(C)PHENANTHRENE	ng/g	1
10545	BENZO(A)ANTHRACENE	ng/g	1
10546	CHRYSENE g/g	ng/g	1
10547	BENZO(B,J,K)FLUORANTHENE	ng/g	1
10548	7,12-DIMETHYLBENZ(A)ANTHRACENE	ng/g	1
10549	BENZO(E)PYRENE	ng/g	1
10550	BENZO(A)PYRENE	ng/g	1
10553	3-METHYLCHOLANTHRENE	ng/g	1
10554	INDENO(1,2,3-C,D)PYRENE	ng/g	1
10555	DIBENZO(A,H)ANTHRACENE	ng/g	1
10556	BENZO(G,H,I)PERYLENE g/g	ng/g	1
10557	DIBENZO(A,L)PYRENE	ng/g	1
10558	DIBENZO(A,I)PYRENE	ng/g	1
10559	DIBENZO(A,H)PYRENE ug/g	ng/g	1

Valid Method Variable or VMV codes are from the Federal ENVIRODAT dictionary maintained by Environment Canda

2.2.2 Metals

Metals were analyzed at the Analytical Chemistry Laboratory of the Alberta Research Council, Vegreville.

In water, twenty-nine metals were measured by inductively coupled plasma, mass spectrometry (ICP-MS) as total recoverable, or extractable metals. Mercury was analysed using ultra-clean procedures and cold vapour atomic absorption spectrometry (CV-AAS).

Metals in sediments were also analysed by ICP-MS (except for mercury analyses of August 4-5, 2005 that were by CV-AAS), but using two different digestions. Total metals were measured after sediments were digested in nitric acid, hydrofluoric acid and hydrogen peroxide. This harsh digestion dissolves even the silica matrix and yields a measure of the total metal concentration present. The second, milder digestion in nitric acid provides an indication of biologically available metals and is the recommended CCME (2001) digestion for comparison with sediment quality guidelines.

The list of metals in water and sediments, method codes, and detection limits, are presented in Table 3.

2.2.3 Particle Size and TOC Analysis

Dissolved organic carbon was analyzed according to Goulden and Brooksbank (1975) and particulate carbon followed methods described in Belcher (1977). Particle size was measured by the hydrometer method (Sheldrick and Wang 1993).

2.3 Data Presentation

The data set for water and sediment is presented in Appendix 2 to 7 and tabulated or graphed data summaries are included in the report.

Trace organics and metals data were compared to the most stringent guidelines established by AENV (AENV 1999), or the Canadian Council of Environmental Ministers (CCME 1999). Bar graphs were used to depict temporal variability. Where appropriate, data sets obtained in 2005 were compared to data obtained in 2002 (Anderson 2003 a and b).

Table 3 Valid method variable codes and detection limits for metals and other elements in water and sediments

	WATER Total Recoverable		SEDIMENT Mild Extraction or 'Extractable'		SEDIMENT Harsh Extraction or 'Total'	
	VMV [1]	MDL (µg/L)	VMV [1]	MDL [3] (µg/g)	VMV [1]	MDL [3] (µg/g)
Mercury	101979	0.6 [2]			103471	0.006
Silver	103998	0.005	103525	0.0096	103474	0.1
Aluminum	103999	2	103526	115	103475	332
Arsenic	80020	0.04	103527	0.076	103476	1
Boron	80021	8	103528	1.5	103477	104
Barium	80022	0.1	103529	0.19	103478	0.62
Beryllium	80023	0.01	103530	0.019	103479	12
Bismuth	80024	0.01	103531	0.019	103480	0.21
Calcium	80025	0.1	103532	96	103481	207
Chlorine	80027	0.3	103534	573 [4]	103483	4146 [4]
Chromium	80029	0.3	103536	0.57	103485	1.2
Copper	80030	0.1	103537	0.19	103486	2.1
Lithium	80034	0.2	103540	0.38	103489	1
Manganese	80036	0.03	103542	0.057	103491	1
Molybdenum	80037	0.008	103543	0.015	103492	0.31
Lead	80041	0.006	103550	0.011	103499	0.31
Antimony	80043	0.001	103552	0.0019	103501	0.083
Tin	80046	0.07	103555	0.13	103504	31
Thorium	80048	0.03	103557	0.057	103506	0.41
Titatnium	80049	0.07	103558	0.13	103507	415
Thallium	80053	0.003	103559	0.0057	103508	0.21
Uranium	80054	0.003	103560	0.0057	103509	0.31
Vanadium	80055	0.05	103561	0.096	103510	2.1
Zinc	80056	0.2	103562	0.38	103511	6.2
Iron	80031	4	103566	153 [4]	103515	1244 [4]
Cobalt	80028	0.01	103567	0.019	103516	0.41
Nickel	80039	0.06	103568	0.11	103517	1.7
Selenium	80044	0.3	103572	0.38	103521	0.83
Strontium	80047	0.008	103573	0.015	103522	1
Cadmium	80026	0.006	103574	0.011	103523	0.41

Notes:

(1) VMV = Valid Method Variable code from federal ENVIRODAT dictionary maintained by Environment Canada

(2) Hg Total in ng/L

(3) MDL are sample specific - as analytical results are corrected for sample weight, which differ somewhat from sample to sample. Values provide an indication of magnitude only.

(4) Reference value instead of detection limit for Cl and Fe because Chlorine-35 isotope is not very sensitive in ICP-MS, and Iron-57 isotope has calcium oxide/hydroxide interferences, a correction coefficient is applied

3.0 RESULTS AND DISCUSSION

3.1 Water

3.1.1 Trace Organics in Water

Petroleum hydrocarbons do not occur normally at measurable concentrations in the water column and their presence in Wabamun Lake is indicative of contamination related directly (spilled hydrocarbons) or indirectly (recovery activities) to the spill. Therefore, hydrocarbon detections in water are of greatest relevance to the tracking of the spill.

Weather conditions played an important role in the dispersion of oil over the lake. During the first few days following the spill, winds were calm and the weather was warm. Spilled oil spread rapidly over the lake surface. However, a few days later, strong westerly winds and waves concentrated the oil along the North, East, and South shoreline. Langmuir circulation patterns were apparent during a helicopter flight over the lake on August 9, 2005. These are surficial circular currents, parallel to the wind, which tend to concentrate foam and debris in parallel streaks. They have been known to concentrate hydrocarbon oil along these streaks and to contribute to the rapid horizontal movement of oil (Overstreet and Galt 1995). Along with the action of braking waves, they can contribute to the vertical movement of oil droplets into the water column. One week after the spill it was apparent that oil had moved across the lake and contaminated the shorelines. Much of the shoreline was boomed off and oil was trapped with varying degree of efficiency in the littoral zone. Water quality surveys were conducted throughout August and September to document conditions in the open water area of the lake.

The selection of sampling sites across the lake was adjusted in successive surveys to reflect the evolving knowledge on the distribution of oil (Figure 1). The complete hydrocarbon data set for water is shown in Appendix 2. A summary of trace organics analyses of Wabamun Lake water is presented in Table 4. BTEX compounds (i.e., benzene, toluene, ethylbenzene and xylene) and several PAH (i.e., fluorene, phenanthrene, acenaphthene, naphthalene, acridine, acenaphthylene and anthracene) were detected in one or more samples. Detections are discussed below for the successive surveys.

QA/QC data are presented and discussed in Appendix 7. In short, compounds that were detected in sequential samples had a low coefficient of variability (CV< 20%). No petroleum hydrocarbon compounds were detected in field or trip blanks. Phthalates were the only compounds that were detected in field and trip blanks; their detection in these blanks and ambient samples may be due to field or lab contamination.

1. <u>August 4-5 Sampling</u>

Sampling on this date was intended to represent background lake conditions before the spill. However, oil spread very quickly and reached some of the sampling sites. This is evidenced by observations of sheen and odour (sites 10-3, 14-6 and 17-1), and detections of some contaminants (Table 4). Nonetheless, reported concentrations of BTEX, PAH's and chloroform were all low, and in many instances reported values were below the method detection limit.

Table 4 Trace organics in Wabamun Lake water: summary of detections and comparisons with guidelines

Site	Scan	Name	CCME-PAL (µg/L)	Concentration (µg/L)	MDL (µg/L)
August 4-5, 2005					
Wabamun 14-6	VPP	1,2,4- trimethylbenzene	NG	0.2	0.1
	VPP	benzene	370.0	*0.09*	0.1
	VPP	toluene	2.0	0.21	0.1
	VPP	xylene	NG	0.74	0.1
	VPP	o-xylene	NG	0.22	0.1
	VPP	ethyl benzene	NG	*0.09*	0.1
	VPP	m,p-xylene	NG	0.52	0.1
	EPP	fluorene	3.0	*0.038*	0.1
	EPP	phenanthrene	0.4	0.117	0.1
	EPP	acenaphthene	5.8	*0.023*	0.1
	EPP	naphthalene	1.1	0.127	0.1
Wabamun 17-1	VPP	toluene	2.0	0.11	0.1
	VPP	xylene	NG	0.12	0.1
	VPP	o-xylene	NG	*0.04*	0.1
	VPP	m,p-xylene	NG	0.08	0.1
	EPP	phenanthrene	0.4	*0.02*	0.1
Wabamun 14-2	VPP	chloroform	1.8	0.2	0.1
Wabamun 13-1	VPP	chloroform	1.8	2.3	0.1
Wabamun 12-1	EPP	phenanthrene	0.4	*0.022*	0.1
Wabamun 10-3	EPP	fluorene	3.0	*0.011*	0.1
	EPP	phenanthrene	0.4	*0.035*	0.1
August 11, 2005					
Wabamun 4-3	PAH	Acridine	NG	0.014	0.01
Wabamun 2-3	VPP	1,2,4-Trimethylbenzene	NG	*0.082*	0.1
	VPP	Benzene	370	0.124	0.1
	VPP	Ethyl benzene	90	*0.067*	0.1
	VPP	Xylene	NG	*0.352*	0.1
	VPP	m,p-Xylene	NG	0.352	0.1
	VPP	o-Xylene	NG	0.139	0.1
	VPP	Toluene	2	0.216	0.1
Wabamun 5-4-A	EPP	Phenanthrene	0.4	*0.018*	0.1
Wabamun 10-3	PAH	Acridine	NG	0.009	0.01
Wabamun East 17-1	EPP	Acenaphthene	5.8	*0.011*	0.1
	EPP	Fluorene	3	*0.024*	0.1
	EPP	Phenanthrene	0.4	*0.061*	0.1
Wabamun East 18-2 Site 1	EPP	Fluorene	3	*0.011*	0.1
	EPP	Phenanthrene	0.4	*0.038*	0.1
	PAH	Acenaphthene	5.8	*0.007*	0.01
	PAH	Fluorene	3	*0.016*	0.01
	PAH	naphthalene	1.1	*0.006*	0.01
	PAH	Phenanthrene	0.4	*0.043*	0.01
Wabamun East 18-2 Site 2	EPP	Fluorene	3	*0.009*	0.1
	EPP	Phenanthrene	0.4	*0.036*	0.1
Wabamun East 18-2 Site 3	EPP	Fluorene	3	*0.01*	0.1
	EPP	Phenanthrene	0.4	*0.03*	0.1
August 16, 2005					
Wabamun 10-3	PAH	Acenaphthylene	NG	*0.003*	0.01
August 23, 2005					
Wabamun Near Paul Band	VPP	Toluene	2.0	0.098	0.1
Wabamun 18-1-B	VPP	Toluene	2.0	0.175	0.1

Table 4 Trace organics in Wabamun Lake water: summary of detections and comparisons with guidelines (continued)

Site	Scan	Name	CCME-PAL (µg/L)	Concentration (µg/L)	MDL (µg/L)
August 30, 2005					
Paul Band site	VPP	toluene	2.0	0.417	0.1
	VPP	xylene	NG	0.12	0.1
	VPP	ethyl benzene	NG	*0.03*	0.1
	VPP	m,p-xylene	NG	0.12	0.1
Foam and sheen near Sailing Club	VPP	naphthalene	1.1	0.716	0.1
	EPP	phenanthrene	0.4	0.328	0.1
CCME Hydrocarbons	*F3*	*C16-C34*		*40*	
	EPP	*Extractable Hydrocarbons (high aromatic content)*		*40*	
Oil contained by drifting boom in middle of lake	VPP	1,2,4- trimethylbenzene	NG	0.165	0.1
	VPP	naphthalene	1.1	12	0.1
	VPP	toluene	2.0	0.101	0.1
	EPP	fluorene	3.0	27.7	0.1
	EPP	acenaphthene	5.8	17.7	0.1
	EPP	anthracene	0.012	9.93	0.1
	EPP	naphthalene	1.1	2.45	0.1
	EPP	phenanthrene	0.4	121	0.1
CCME Hydrocarbons	*F1*	*C6-C10*		*0.2*	
		toluene		*0.1*	
	F2	*C10-C16*		*8000*	
	F3	*C16-C34*		*17000*	
	EPP	*Extractable Hydrocarbons (high aromatic content)*		*25000*	
September 7, 2006					
Wabamun 4-3	VPP	toluene	2.0	0.388	0.1
	VPP	xylene	NG	0.182	0.1
	VPP	o-xylene	NG	0.045	0.1
	VPP	ethyl benzene	NG	0.029	0.1
	VPP	m,p-xylene	NG	0.137	0.1
Wabamun South West Paul Band	VPP	1,2,4-trimethylbenzene	NG	0.13	0.1
	VPP	benzene	370.0	*0.074*	0.1
	VPP	chloroform	1.8	0.169	0.1
	VPP	trihalomethanes	NG	0.169	0.1
	VPP	toluene	2.0	1.3	0.1
	VPP	xylene	NG	0.776	0.1
	VPP	o-xylene	NG	0.173	0.1
	VPP	ethyl benzene	90	0.115	0.1
	VPP	m,p-xylene	NG	0.603	0.1
September 15, 2005					
Paul Band	VPP	1,2,4-trimethylbenzene	NG	0.891	0.1
	VPP	1,3,5-trimethylbenzene	NG	0.179	0.1
	VPP	toluene	2.0	0.938	0.1
	VPP	ethyl benzene	90	0.156	0.1
	VPP	xylene	NG	1.218	0.1
	VPP	o-xylene	NG	0.327	0.1
	VPP	m,p-xylene	NG	0.891	0.1

Notes:
VPP - Volatile Priority Pollutants
EPP - Extractable Priority Pollutants
PAH - Polycyclic Aromatic Hydrocarbons
CCME-PAL: Water quality guideline for the protection of aquatic life.
NG = No Guideline
Shaded, italicized values are reported below the MDL

Concentrations were all within guidelines for the protection of aquatic life, except for one measurement of chloroform. Chloroform is a by-product of water treatment processes and is introduced into the lake via the discharge of treated water from the Wabamun Lake Water Treatment Plant (e.g., Casey 2003).

2. August 11 Sampling

At the time of this survey spilled oil had potentially spread over much of the lake and the intent of the sampling was to document general conditions across the lake; a total of 13 sites were sampled (Figure 1).

Trace organics detected during this survey were similar to those reported in the first survey. PAH such as phenanthrene, acenaphthene, fluorene and acridine were detected at several sites. Concentrations were well below existing surface water quality guidelines for the protection of aquatic life.

3. August 16 Sampling

This survey provided an ongoing documentation of water quality conditions in the lake, but based on previous sampling results, the number of sampling locations was reduced to 10 sites. Upon request of Central Region, sites 12-1, 18-1B, and a site near the Paul Band shoreline were added (Figure 1).

Traces of acenaphthylene were detected at site 10-3, but no other compounds were detected in this survey (Table 4).

4. August 23 Sampling

As an ongoing documentation of conditions in the lake, the two profile sites (4-3 and 10-3) as well as sites 12-1, 18-1B, and the site near the Paul Band shoreline were sampled (Figure 1).

Very low concentrations of toluene, about 10 times lower than PAL guidelines, were detected at the Paul Band site and at site 18-1B. Note that these sites are somewhat closer to the shoreline than most (Table 4).

There were no detections at other sites.

5. August 30 Sampling

Lake Samples
Sites sampled on August 23 were re-sampled on August 30, with the exception of site 12-1.

Trace amounts of toluene, ethyl benzene, and xylene were detected at the Paul Band site. The toluene detection was below PAL guideline; there are no guidelines for the other compounds detected (Table 4).

There were no detections at other lake sites.

Samples from Areas of Localized Contamination
In addition to the lake sampling, samples were taken from two areas with localized contamination: foam associated with an oily film observed 1 km south of the Rich's Point Sailing Club, and an oil slick contained by an unanchored boom that had drifted into the lake. An asterisk on Figure 1 marks these sites. At these two locations the surficial material was sampled directly (i.e., not sub-surface water sample).

The sample taken from a foamy patch near the Rich's Point Sailing Club contained naphthalene and phenanthrene, at levels below the PAL guideline, and F3 hydrocarbons (C16-C34), as well as extractable hydrocarbons with high aromatic content (Table 4).

The oil slick sample contained toluene at concentrations below PAL guidelines, and, fluorene, acenaphthene, anthracene, extractable and volatile naphthalene all at concentrations well above PAL guidelines. F2 (C10-C16), F3 (C16- C34), and extractable hydrocarbons with high aromatic content were present in substantial amounts (Table 4).

6. September 7 Sampling

Sampling on September 7 was continued at sites sampled in the previous week. Two additional sites were sampled along the Paul Band shoreline, one northeast and one southwest of the original Paul Band site (Figure 1).

Again BTEX compounds were detected as well as chloroform and THM related to the water treatment plant. Interestingly, BTEX compounds were also found in the west basin (Table 4).

For the most part BTEX compounds are volatile and it was surprising to see them reappear one month after the spill. Considering the odd behaviour of oil in the lake it is not impossible that spilled material might be involved, but other sources need to be considered. By this date boat traffic on the lake had increased and there was also a lot of mechanical weed cutting along the littoral zone. BTEX detections could be related to the increased use of gas-powered engines.

7. September 15 Sampling

Sampling was repeated on September 15 at the Paul band site, 10-3 and 4-3. BTEX compounds were detected again along the Paul Band shoreline where both large weed cutters and hand-held weed whackers were being used.

Conclusions

- The oil slick spread rapidly over the eastern and south-east pelagic portion of the lake, but in the week following the spill, strong westerly winds and wave action ensured that most of the oil drifted to the shoreline. Overall, water in the open water area of the lake was not contaminated with spilled hydrocarbons.

- Results from the Paul Band site indicated some low level contamination. This could possibly be related to recovery operations along the shoreline and,or wind patterns that may have resulted in the transport of hydrocarbons on the water surface to that area.
- Hydrocarbons in oil that was contained by booms were well in excess of guidelines for PAL and represent a concern for aquatic life along the littoral zone. Potential escape of oil towards the open water is an ongoing risk to water quality and aquatic life.

3.1.2 Metals in Water

Metals occur naturally in surface waters and their presence in the water column is not necessarily linked to anthropogenic influences. An analysis of Bunker C indicated that several metals with CCME guidelines were not detectable, while measurable, although low, concentrations of others were recorded (i.e., arsenic, barium, copper, molybdenum, nickel, strontium, vanadium and zinc) (Golder 2005).

A summary of metals data in Wabamun Lake water is presented in Table 5 and the full dataset is shown in Appendix 3.

A total of 54 Wabamun Lake water samples, 15 of which have mercury data, were analyzed in August and September 2005. Concentrations were compliant with CCME or Alberta Surface Water Quality Guidelines for all metals for which such guidelines exist (Table 5). This is in contrast with 2002 data where cadmium and selenium levels of a few samples were slightly above the corresponding guideline.

Overall, the ranges of metal concentration observed in 2005 correspond well to concentration ranges reported in 2002 (see Table 5), with the exception of a few metals where maximum concentration in 2005 were slightly higher than in 2002 (e.g., Zn, Pb, Th, Li, Ti, Fe, Sr, Cu, Sn, and Bo).

Bar graphs depicting concentrations measured at various sampling sites in the successive 2005 surveys were produced to help evaluate concentration patterns for metals that were detected in Bunker C or that had higher maximum concentration in 2005 compared to 2002 (Figure 2). In some cases such as copper, lead, and nickel, noticeably higher concentrations were recorded once at one or more sites, usually in the West basin. Zinc concentrations were quite variable and the concentration range was widest immediately before and after the spill. Lithium, and boron concentrations were slightly higher in some surveys after the spill (Li: Aug. 11, Aug. 16, Sep. 7 and 15; B: Aug. 16). Iron levels were highest in August 23 samples. For strontium, the concentration maximum was observed before the spill. Thallium appears to be detected more frequently and at higher concentrations after the spill and tin was detected more frequently and at higher concentrations before the spill. Arsenic, barium, molybdenum and vanadium concentrations remained fairly stable throughout the sampling.

Table 5 Comparison of 2005 metals concentrations in Wabamun Lake water with surface water quality guidelines and 2002 metals concentrations

					Wabamun Lake 2005 Surveys Number of Samples = 54 Number of Hg = 15				Wabamun Lake 2002 Survey Number of Samples = 33			
VMV	Total Metals	Units	Guideline [1]	Comments [2]	DL	Minimum	Maximum	Number Non-compliant Measurements	DL	Minimum	Maximum	Number Non-compliant Measurements
101979	Mercury	ng/L	5		0.6	L0.6	L0.6		0.6	L0.6	2.9	0
103998	Silver	µg/L	0.1	Alberta draft	0.005	0.0005	0.0053	0	0.008	0.0052	0.016	0
103999	Aluminum	µg/L	100	pH>6.5 Ca>4 mg/L	2	4.38	65	0	1	7.7	68	0
80020	Arsenic	µg/L	5		0.04	2.84	3.63	0	0.3	2.7	3.7	0
80021	Boron	µg/L			8	786	1000		9	881	958	
80022	Barium	µg/L			0.1	58.2	130		1	63.7	142	
80023	Beryllium	µg/L			0.01	0.003	0.005		0.1	L0.04	0.14	
80024	Bismuth	µg/L			0.01	0.001	0.01		0.003	L0.005	0.019	
80026	Cadmium	µg/L	0.04		0.006	0.0024	0.025	0	0.02	L0.02	0.06	3
80028	Cobalt	µg/L			0.01	0.019	0.056		0.008	L0.02	0.07	
80029	Chromium	µg/L	1	I.e., Cr 6+	0.3	0.05	0.51	0	0.05	0.17	0.59	0
80030	Copper	µg/L	3	120<CaCO3<180	0.1	0.48	2.4	0	0.07	0.58	1.3	0
80031	Iron	µg/L	300		4	2.5	39	0	3	L3	25	0
80034	Lithium	µg/L			0.2	28.7	44.2		0.4	32.6	37.2	
80036	Manganese	µg/L			0.03	6.98	89.7		1	32.4	161	
80037	Molybdenum	µg/L	73		0.008	4.06	5.71	0	0.08	4.4	5.21	0
80039	Nickel	µg/L	110		0.06	0.03	0.54	0	0.05	L0.06	0.53	0
80041	Lead	µg/L	4	120<CaCO3<180	0.006	0.0297	0.267	0	0.008	0.038	0.087	0
80043	Antimony	µg/L			0.001	0.189	0.236		0.02	0.17	0.25	
80044	Selenium	µg/L	1		0.3	0.1	0.28	0	0.8	L0.4	1.3	6
80046	Tin	µg/L			0.07	0.031	0.3		0.01	L0.1	L0.1	
80047	Strontium	µg/L			0.008	158	394		5	160	300	
80048	Thorium	µg/L			0.03	0.0026	0.1		0.005	L0.003	0.026	
80049	Titanium	µg/L			0.07	0.38	7		0.6	0.6	2	
80053	Thallium	µg/L	0.8		0.003	0.0003	0.0023	0	0.005	0.0006	0.011	0
80054	Uranium	µg/L			0.003	0.379	0.519		0.02	0.45	0.58	
80055	Vanadium	µg/L			0.05	0.632	1.18		0.06	0.87	1.44	
80056	Zinc	µg/L	30		0.2	1.36	17.7	0	0.1	0.75	5.7	0

Notes:

[1] Guidelines are CCME guidelines unless specified differently in comments

[2] Where appropriate, the range of $CaCO_3$, Ca or pH prevailing in Wabamun Lake has been used to select guideline value

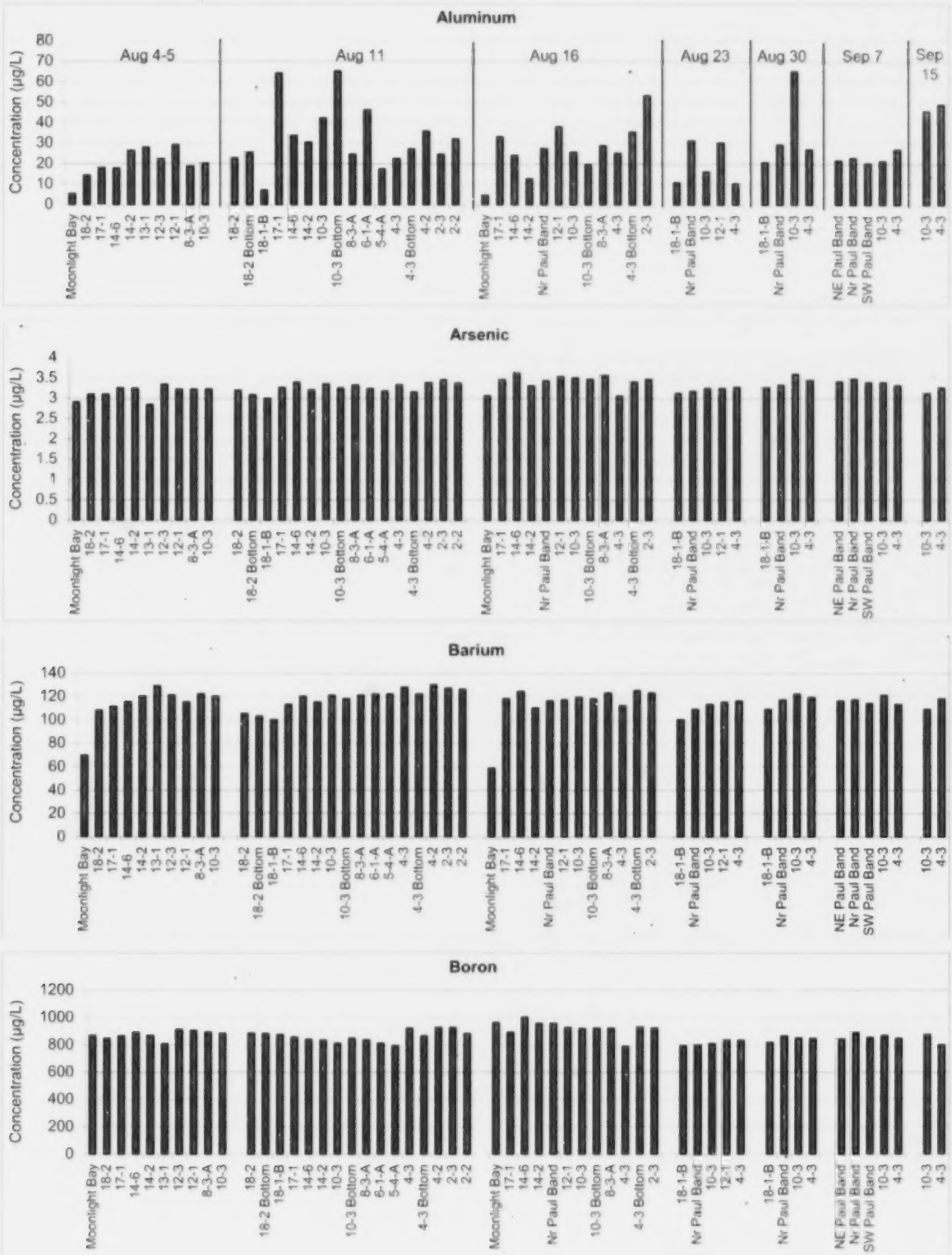

Figure 2 Metal concentrations measured in Wabamun Lake water at sites sampled in 2005 before and after the Bunker C spill. No values indicated concentration <MDL

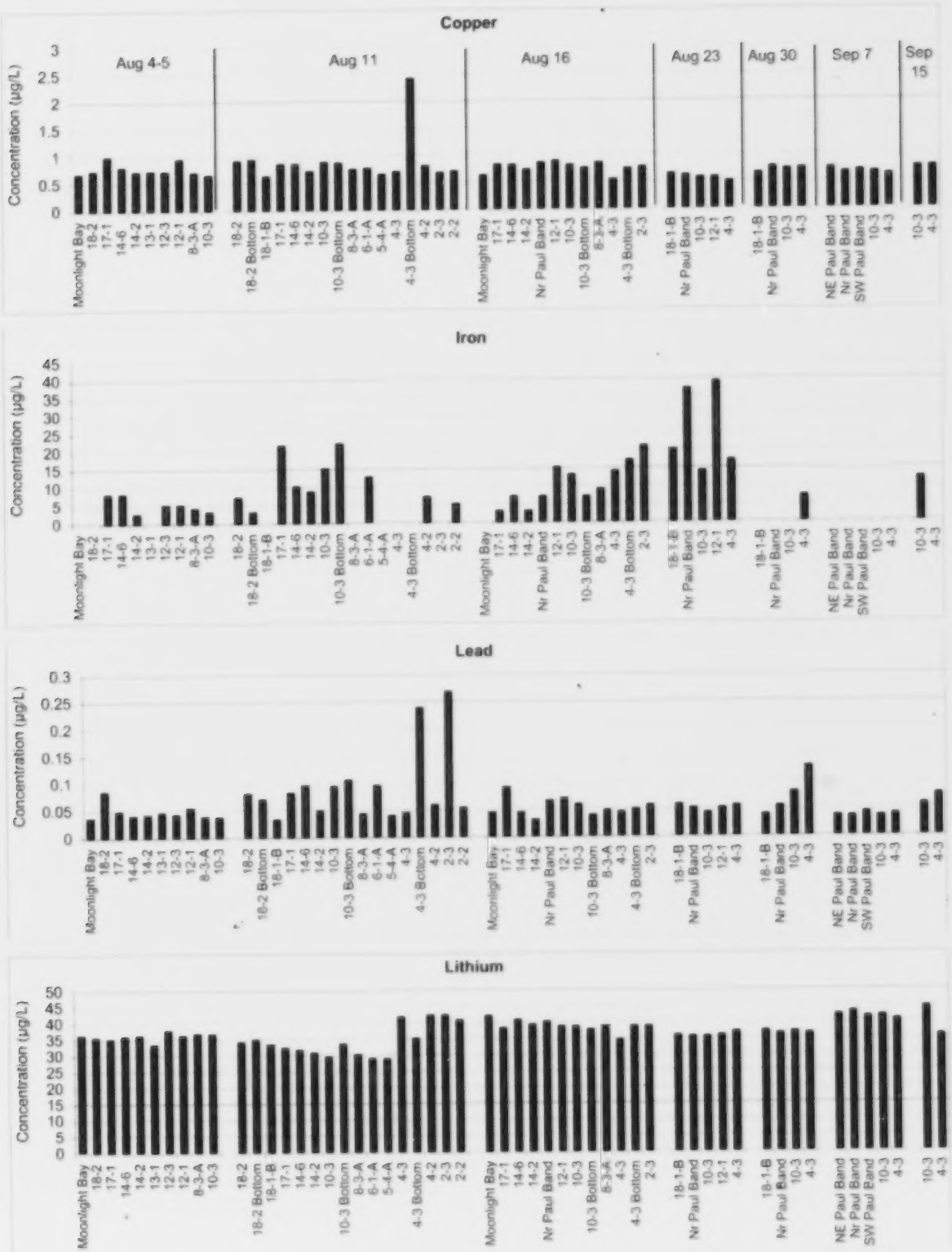

Figure 2 Metal concentrations measured in Wabamun Lake water at sites sampled in 2005 before and after the Bunker C spill (continued) No values indicated concentration <MDL

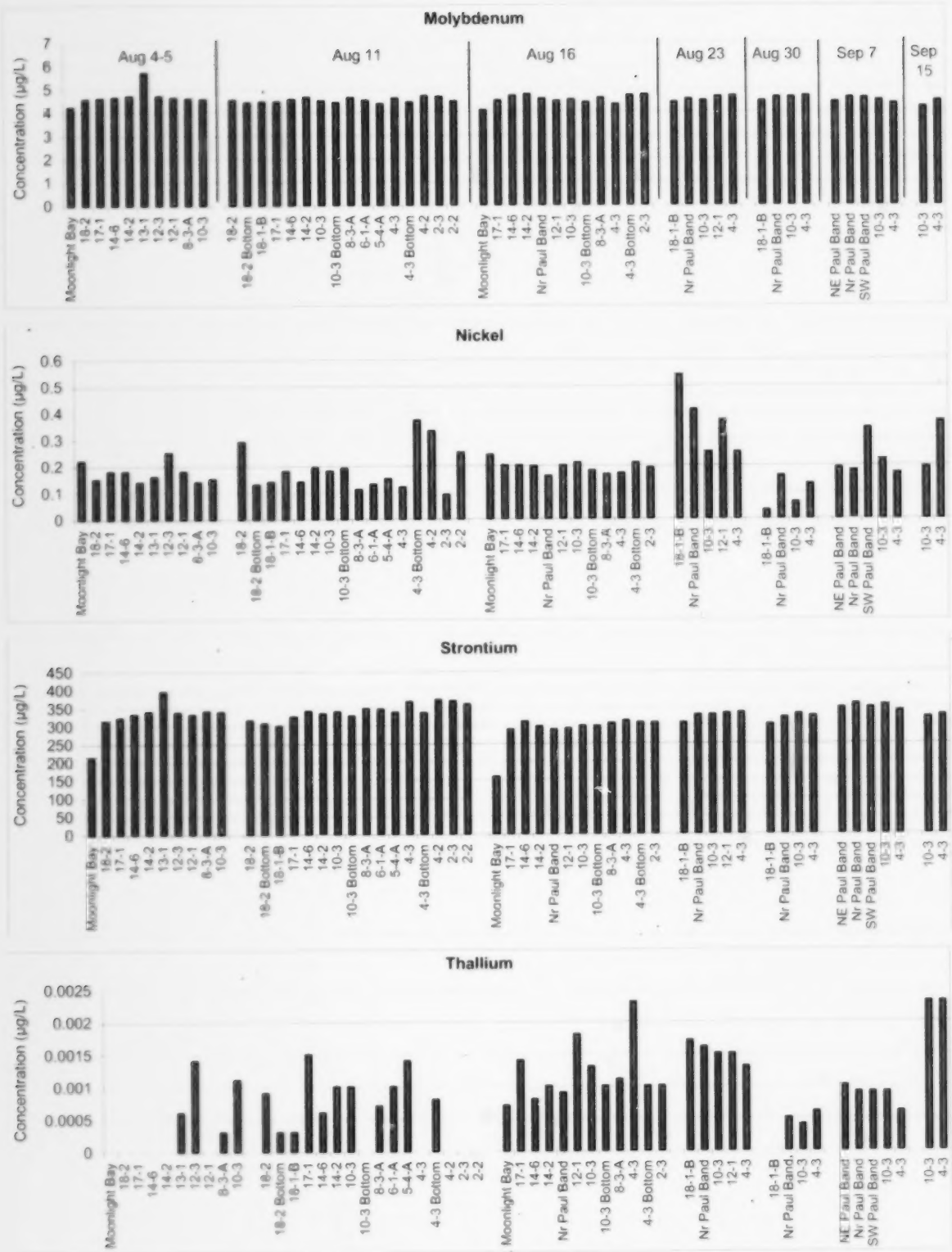

Figure 2 Metal Concentrations measured in Wabamun Lake water at sites sampled in 2005 before and after the Bunker C spill (continued) No values indicated concentration <MDL

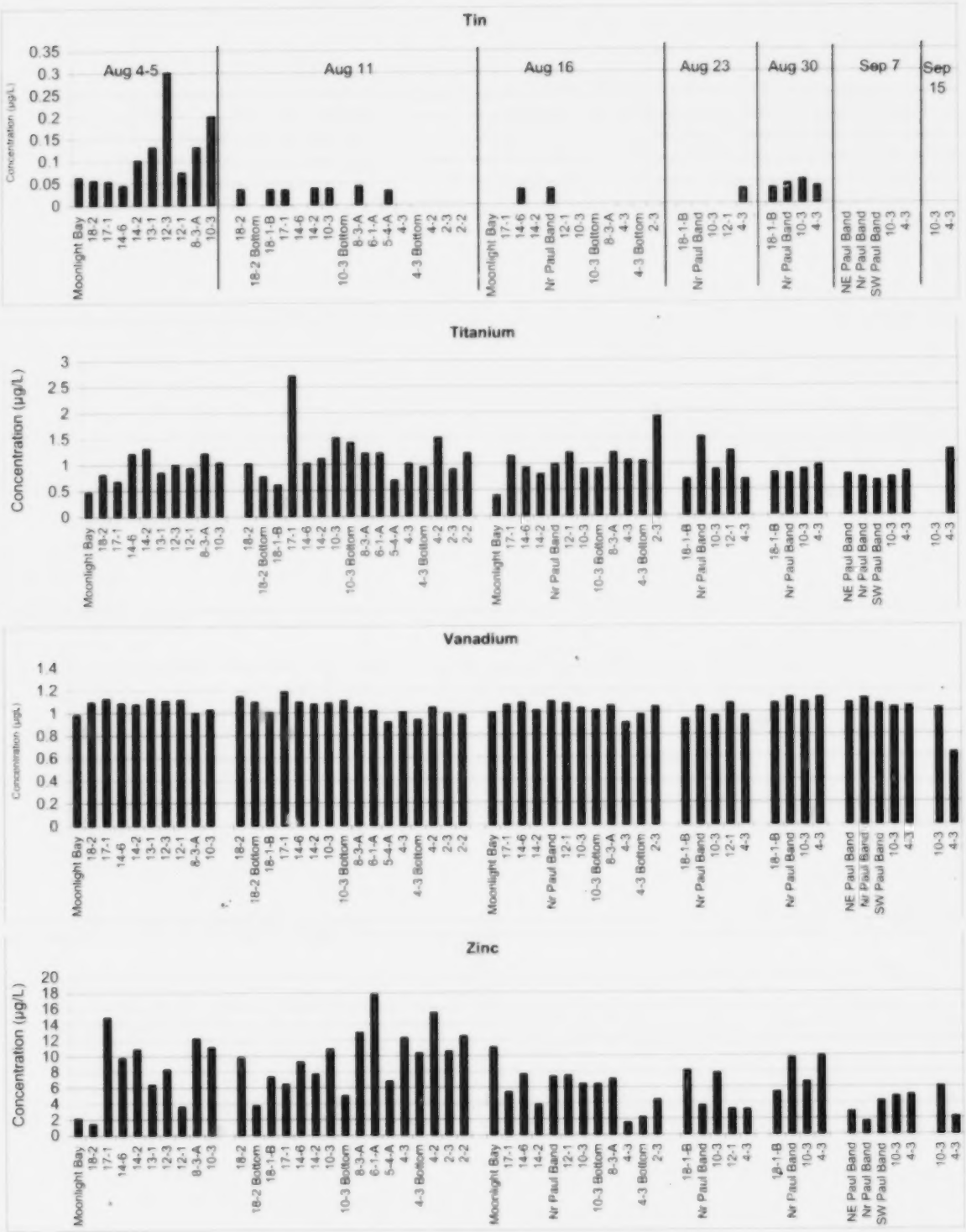

Figure 2 Metal concentrations measured in Wabamun Lake water at sites sampled in 2005 before and after the Bunker C spill (continued) No values indicated concentration <MDL

These concentration patterns are not consistent among metals and could be related to a variety of factors other than spill effects (e.g., seasonality, amount of suspended sediment, analytical variability).

Conclusions

- The high level of compliance with guidelines, coupled with, for the most part, comparable concentration ranges in 2005 and 2002 indicates that no significant increase in metals concentrations occurred following the spill in early August 2005.
- While some metals (e.g., lead, thallium, lithium, boron, titanium, iron, strontium, copper and zinc) have sites with higher concentrations after the spill it is not clear that these are related to the spill.

3.2 Sediments

3.2.1 Lake Sediment Characteristics

Sediment characteristics such as organic carbon content, and particle size distribution together with other factors such as water column depth and sedimentation rates can influence contaminant concentrations.

Measurements of the relative amount of silt, clay, sand, organic and total carbon are shown in Appendix 4.

The organic carbon content of the samples ranged from 3.9 to 19.7%, inclusive, in August 4-5 samples, and from 3.4 and 19.8%, inclusive, in August 16 samples. Silt was dominant in all samples except in the sample taken near the Paul Band shoreline. Sediments from that site were predominantly sand and had a low organic carbon content (1.3%). The sample from 14-2 before the spill was 50% sand and had a low organic content (2.7%) compared to the sample collected from that site on August 16 (7% sand and 5.4% organic carbon). These differences may influence contaminant levels at that site. Other sites that were sampled both on August 4-5 and August 16 had very similar sediment characteristics (i.e., 17-1, 14-6, 12-1, 10-3, 8-3).

3.2.2 Trace Organics in Sediments

Detailed results of trace organic analyses in sediments are provided in Appendix 5. Results of QA/QC sampling are presented in Appendix 7 and indicate that concentrations of compounds that were detected in three split samples had a low coefficient of variability (CV<15%).

A total of 17 and 14 PAHs were detected in Wabamun Lake sediment samples taken on August 4-5, 2005 and August 16, 2005, respectively. Phenanthrene, anthracene, pyrene, fluoranthene, benzo(a)anthracene, chrysene, benzo(b,j,k)fluoranthene, benzo(e)pyrene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene were detected in both surveys. In the first survey, retene was detected at 14-6 and benzo(c)phenanthrene, 7,12 dimethylben(a)anthracene, 3-methyl chloranthene and

dibenzo(a,l)pyrene were reported at site 18-1. Low levels of naphthalene, and fluorene were detected at most or all sites in the second survey, only.

In 2002, an intensive sediment study on Wabamun Lake described the occurrence and concentrations of 22 PAH's (Anderson 2003 b). The presence of PAH in sediments was attributed to natural sources (e.g., exposed coal seams in and around the lake), and man-made sources (e.g., industrial, domestic and recreational fossil fuel burning, creosote-treated wood structures). All the PAHs detected in 2005 had been reported at one or more sites in 2002.

Ten of the PAHs detected in 2005 before and after the spill have CCME interim sediment quality guidelines for the protection of aquatic life (Table 6). Sediment guidelines consist of an interim sediment quality guideline (ISQG) at and below which effects are unlikely, and a probable effects level (PEL) at and above which effects are likely.

- ISQG were exceeded before the spill for benzo(a)anthracene, chrysene, benzo(a)pyrene and dibenzo(a,h)anthracene at two sites (18-2 and 14-6) (Table 6).
- After the spill, dibenzo(A,H) anthracene was the only PAH to exceed the ISQG at one site (14-6). Concentrations of other PAH were below the ISQG.
- In 2002, exceedences of the ISQG were also reported at sites in the North East portion of the lake. ISQG for benzo(a)anthracene, chrysene, benzo(a)pyrene, and dibenzo(a,h)anthracene were exceeded at 18-2 and 16-4-A and ISQG for dibenzo(a,h)anthracene was also exceeded at 14-6 and 15-6A.

Figure 3 provides a comparison of the PAHs reported from the sites sampled in both 2002 and 2005. In most instances, PAH detected in 2002 were also detected on August 16, but fewer compounds were reported per site on August 4-5, 2005; this despite the fact that a larger variety of compounds was reported overall in that survey than after the spill (i.e., 22 and 15 different PAHs reported before and after the spill, respectively). Overall, concentrations reported after the spill tend to be somewhat lower than before the spill, or in 2002. These differences may be the result of slight differences in sediment properties and, or possibly analytical variability. However, the results do not indicate that on August 16, 2005 sediments in the open water of Wabamun Lake had been contaminated by the spilled hydrocarbons. Subsequent movement of oil and potential sediment contamination are part of ongoing monitoring programs by Alberta Environment, Environment Canada and CN (Golder 2006).

Conclusions

- Overall PAH detected in sediments from the open water of Wabamun Lake by August 16, 2005 do not indicate that sediments had been contaminated by petroleum hydrocarbons. Their variety, concentration and level of compliance with CCME ISQG were similar to, or lower than, immediately before the spill, or in 2002.

Table 6 Comparison of CCME sediment quality guidelines with PAH concentrations detected in lake sediments

	Naphthalene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo(A) Anthracene	Chrysene	Benzo(A) Pyrene	Dibenzo(A,H) Anthracene	Pyrene
CCME ISQG	34.6	21.2	41.9	46.9	111	31.7	57.1	31.9	6.22	53
CCME PEL	391	144	515	245	2355	385	862	782	135	875
Before spill (August 4-5, 2005)										
Mean of all detections	ND	ND	12.1	4.4	8.5	30.6	40.6	56.8	23.6	0.1
# samples	10	10	10	10	10	10	10	10	10	10
# detections > ISQG	0	0	0	0	0	2	2	2	2	0
# detections > PEL	0	0	0	0	0	0	0	0	0	0
% detections > ISQG	0	0	0	0	0	20	20	20	20	0
% detections > PEL	0	0	0	0	0	0	0	0	0	0
After spill (August 16, 2005)										
Mean of all detections	3.1	3.0	4.4	2.8	2.6	5.6	8.4	11.3	4.7	ND
# samples	9	9	9	9	9	9	9	9	9	9
# detections > ISQG	0	0	0	0	0	0	0	0	1	0
# detections > PEL	0	0	0	0	0	0	0	0	0	0
% detections > ISQG	0	0	0	0	0	0	0	0	11	0
% detections > PEL	0	0	0	0	0	0	0	0	0	0
Historical (Summer 2002)										
Mean of all detections	19.88	3.29	5.21	2.98	5.13	32.79	20.62	23.51	3.76	14.36
# samples	27	27	27	27	27	27	27	27	27	27
# detections > ISQG	1	0	0	0	0	2	2	3	4	1
# detections > PEL	0	0	0	0	0	0	0	0	0	0
% detections > ISQG	4	0	0	0	0	7	7	11	15	4
% detections > PEL	0	0	0	0	0	0	0	0	0	0

Notes:
ND = not detected
all concentrations in µg/g dry weight

ISQG: interim sediment quality guideline
PEL: Probable effects levels

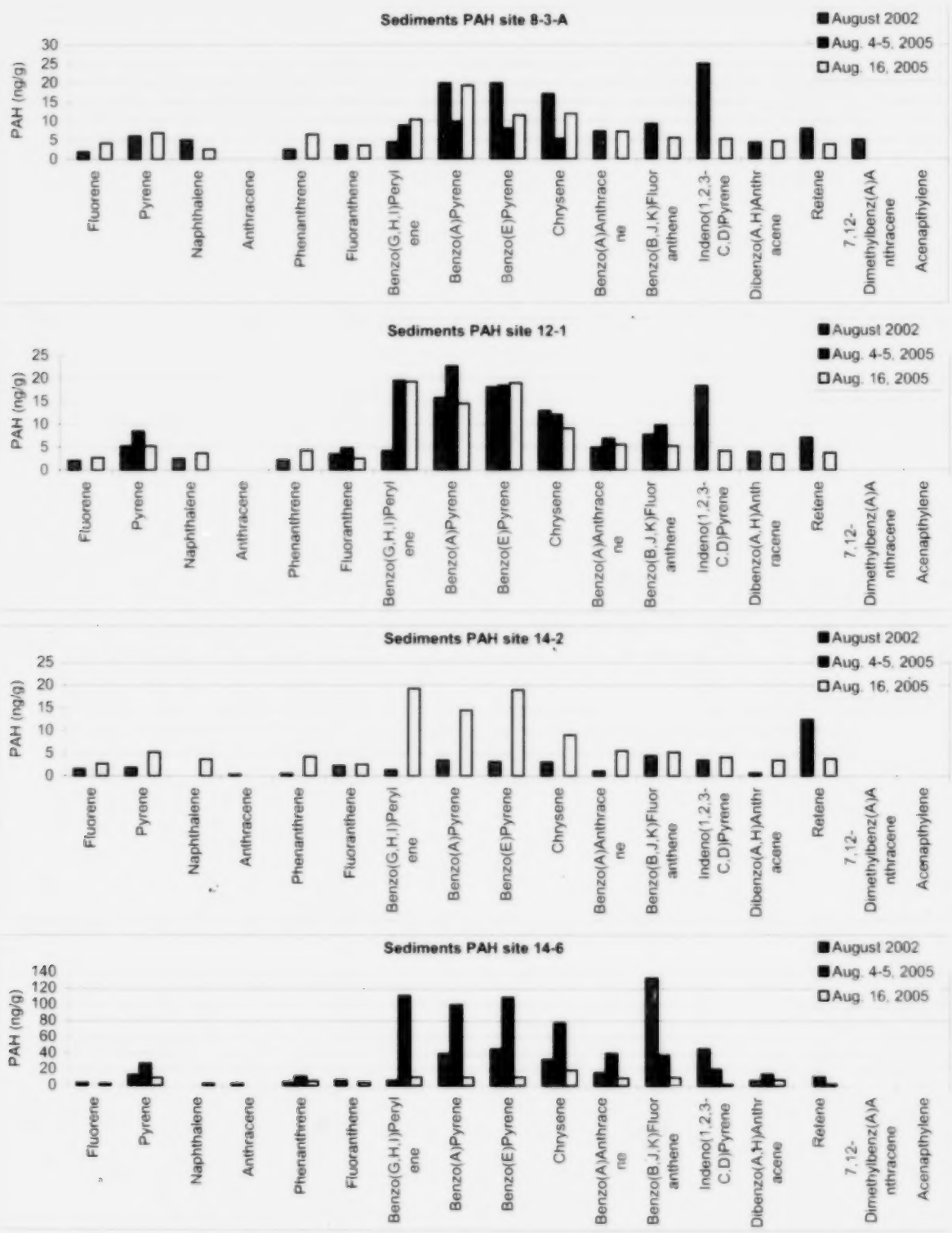

Figure 3 Trace organics detected in Wabamun Lake sediments at sites sampled in 2005 and 2002

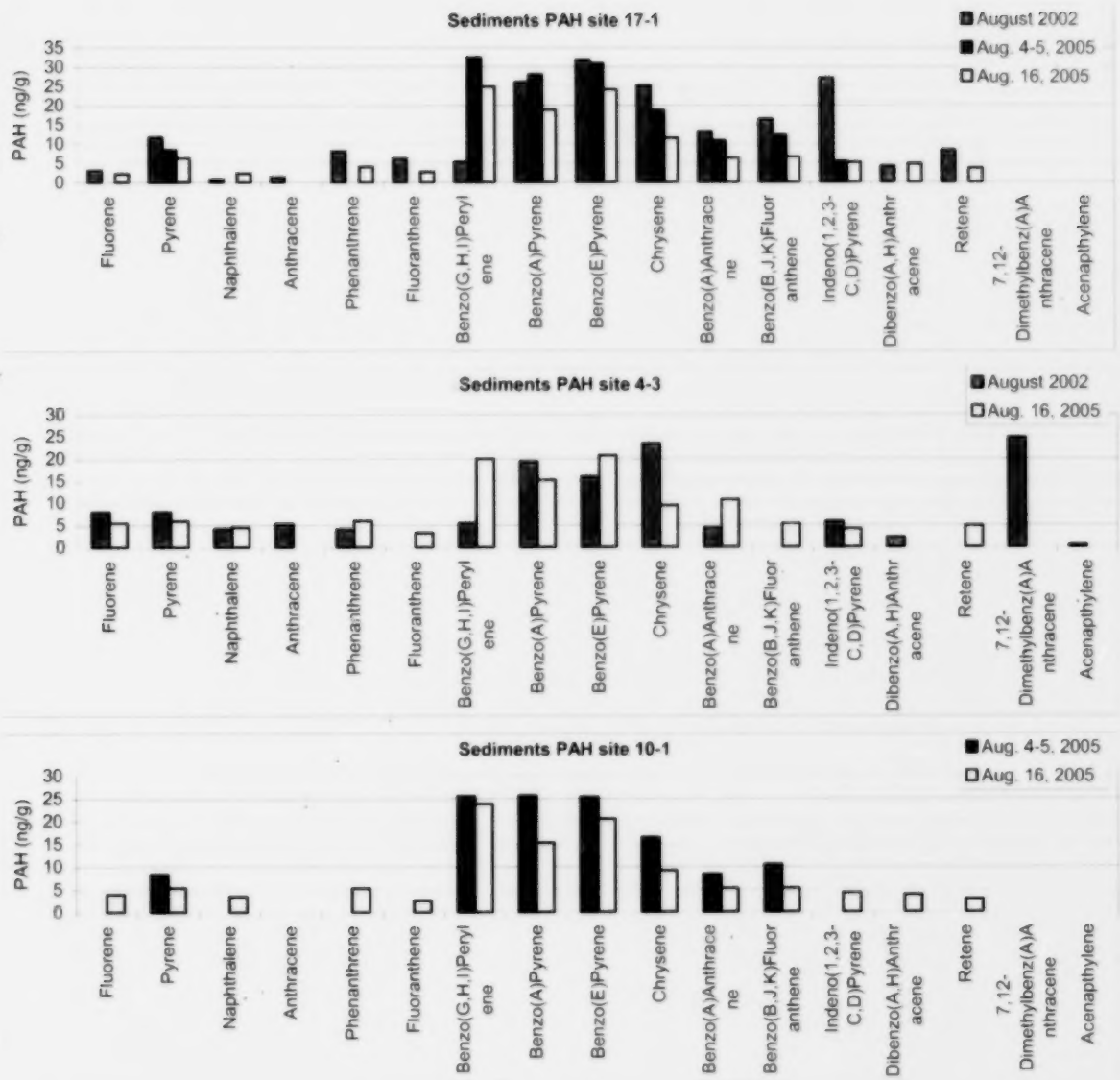

Figure 3 Trace organics detected in Wabamun Lake sediments at sites sampled in 2005 and 2002 (continued)

3.2.3 Metals

Metals occur naturally in the earth's crust where their abundance ranges from trace to very high levels. They occur at measurable concentrations in lake sediments. Sediment surveys carried out on Wabamun Lake in 2002 (Anderson 2003 b) showed that metal concentrations in surficial sediments from Wabamun Lake tend to be highest in the deeper portion of the west basin where fine-grained sediments, rich in organic matter, prevail.

Results of sediment analyses conducted in 2005 are presented in Appendix 6.

CCME sediment quality guidelines for the protection of aquatic life exist for 7 of the 30 metals or metalloids measured in Wabamun Lake sediments. Guidelines were applied to 'extractable' or 'biologically available' concentrations obtained by digestion in mild acids. Mercury and lead were the only two metals with concentrations consistently below the ISQG (Table 7). All other metals exceeded the ISQG in at least one sample (i.e., Zn at site 18-2 on August 4-5), and in as many as 90% of the samples (e.g., As). PEL were exceeded for As in samples from three sites (all in the west basin) collected on August 16, 2005 (8-3A, 2-3, and 4-3).

In 2002, sediments were primarily analyzed for total metals. Non-compliance with ISQG for most metals, and PEL for As, was reported. The incidence of non-compliance observed in total metal concentrations before and after the spill in 2005 are similar to that reported in 2002.

Observations

- Compared to August 4-5, metal concentrations recorded on August 16 in the open water of Wabamun Lake do not show increases that could be indicative of contamination. Concentrations in 2005 are consistent with those described for Wabamun Lake sediments in 2002.

Table 7 Comparison of metals detected in Wabamun Lake sediments with CCME sediment quality guidelines (all concentrations in µg/g dry weight)

	Mercury	Arsenic		Chromium		Copper		Lead		Zinc		Cadmium	
	Total	Total	Extrac-table	Total	Extrac-table	Total	Extrac-table	Total	Extrac-table	Total	Extrac-table	Total	Extrac-table
CCME ISQG	0.17	5.9		37.3		35.7		35		123		0.6	
CCME PEL	0.486	17		90		197		91.3		315		3.5	
Before (August 4-5) spill													
# samples	10	10	10	10	10	10	10	10	10	10	10	10	10
Mean of all detections	0.0334	15.14	11.97	45.92	23.00	96.62	80.20	20.19	17.00	100.19	77.48	0.32	0.30
# detections > ISQG	0	9	9	7	0	8	7	0	0	2	1	9	8
# detections > PEL	0	4	0	0	0	1	0	0	0	0	0	0	0
% detections > ISQG	0	90	90	70	0	80	70	0	0	20	10	90	80
% detections > PEL	0	40	0	0	0	10	0	0	0	0	0	0	0
After (August 16) spill													
# samples	9	9	9	9	9	9	9	9	9	9	9	9	9
Mean of all detections	0.062	14.47	12.51	34.32	26.58	92.94	80.83	20.42	16.70	104.86	78.43	0.35	0.32
# detections > ISQG	0	8	8	3	1	7	7	0	0	5	0	8	7
# detections > PEL	0	5	3	0	0	0	0	0	0	0	0	2	0
% detections > ISQG	0	89	89	33	11	78	78	0	0	56	0	89	78
% detections > PEL	0	56	33	0	0	0	0	0	0	0	0	22	0
August 2002 (1)													
# samples	69	69		69		69		69		69		69	
Mean of all detections	0.067	14.4		43.6		64.7		18.3		82		0.53	
# detections > ISQG	0	64		50		46		0		4		28	
# detections > PEL	0	17		0		0		0		0		0	
% detections > ISQG	0	93		72		67		0		6		54	
% detections > PEL	0	25		0		0		0		0		0	

Notes:
(1) refer to Anderson (2003 b)

ISQG: interim sediment quality guideline
PEL: probable effects level

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5.0 APPENDICES

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005

						WATER										
						Analytical Lab										
						ARCV		Maxxam			McIntyre	ARCV				
Date and Site	Group Sample #	Composite Water Sample #	Subsurface Water Sample #	Tissue Sample #	Profiles (Light, Temp, DO, Cond, pH, Redox)	Nutrients	Major Ions etc.	Nutrients	Major Ions etc.	TP/TSS Bottom	Chl-a	ICPMS Metals Sub-surface	Ultra Trace Hg Sub-surf	ICPMS Metals Bottom	Ultra Trace Hg Bottom
August 4, 2005															
14-6	05SWE0944		05SWE01945		X	X	X					X	X		
17-1	05SWE1931		05SWE01932		X	X	X					X	X		
18-2	05SWE1922	05SWE01930	05SWE01965		X	X	X					X	X		
20-1	05SWE01959		05SWE01958		X	X	X					X	X		
August 5, 2005															
8-3A	05SWE02004		05SWE02005		X	X	X					X	X		
10-3	05SWE01971		05SWE01972		X	X	X					X	X		
12-3	05SWE01988		05SWE01989		X	X	X					X	X		
12-1	05SWE02020		05SWE02021		X	X	X					X	X		
13-1	05SWE02037		05SWE02038		X	X	X					X	X		
14-2	05SWE02049		05SWE02050		X	X	X					X	X		
August 11, 2005															
2-2	05SWE02120		05SWE02135									X			
2-3	05SWE02120		05SWE02134									X			
5-4-A	05SWE02120		05SWE02137									X			
4-2	05SWE02120		05SWE02136									X			
4-3	05SWE02120		05SWE02123									X			
4-3	05SWE02120	05SWE02121			X			X	X		X				
4-3	05SWE02120		05SWE02133							X				X	X
8-3-A	05SWE02138		05SWE02154									X			
6-1-A	05SWE02138		05SWE02153									X			
14-6	05SWE02138		05SWE02156									X			
14-2	05SWE02138		05SWE02155									X			
10-3	05SWE02138		05SWE02141									X			
10-3	05SWE02138	05SWE02139			X			X	X		X				
10-3	05SWE02138		05SWE02152							X				X	X
17-1	05SWE02157		05SWE02167									X			
18-1-B	05SWE02157		05SWE02168									X			
18-2	05SWE02157		05SWE02160									X			
18-2	05SWE02157	05SWE02158			X			X	X		X				
18-2	05SWE02157		05SWE02166							X				X	X

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

						WATER									
						Analytical Lab									
						ARCV		Maxxam			Mcintyre	ARCV			
Date and Site	Group Sample #	Composite Water Sample #	Subsurface Water Sample #	Tissue Sample #	Profiles (Light, Temp, DO, Cond, pH, Redox)	Nutrients	Major Ions etc.	Nutrients	Major Ions etc.	TP/TSS Bottom	Chl-a	ICPMS Metals Sub-surface	Ultra Trace Hg Sub-surf	ICPMS Metals Bottom	Ultra Trace Hg Bottom
August 16, 2005															
2-3	05SWE02195		05SWE02214									X			
4-3	05SWE02195		05SWE02197									X			
4-3	05SWE02195	05SWE02195			X			X	X		X				
4-3	05SWE02195		05SWE02212							X				X	X
8-3-A	05SWE02215		05SWE02243									X			
10-3	05SWE02215		05SWE02217									X			
10-3	05SWE02215	05SWE02216			X			X	X		X				
10-3	05SWE02215		05SWE02231							X				X	X
12-1	05SWE02215		05SWE02244									X			
14-6	05SWE02215		05SWE02240									X			
14-2	05SWE02215		05SWE02241									X			
Paul Band	05SWE02215		05SWE02239									X			
17-1	05SWE02215		05SWE02242									X			
Moonlight Bay	05SWE02215		05SWE02189									X			
August 23, 2005															
4-3 West	05SWE02347		05SWE02399									X			
4-3 West	05SWE02347	05SWE02348			X			X	X		X				
4-3 West	05SWE02347			05SWE02400											
10-3 East	05SWE02349		05SWE02380									X			
10-3 East	05SWE02349	05SWE02350			X			X	X		X				
10-3 East	05SWE02349			05SWE02381											
12-1	05SWE02349		05SWE02344									X			
18-1- b	05SWE02349		05SWE02349									X			
Paul Band	05SWE02349		05SWE02344									X			
August 30, 2005															
4-3 West	05SWE02497		05SWE02724									X			
4-3 West	05SWE02497	05SWE02498			X			X	X		X				
10-3 East	05SWE02495		05SWE02740									X			
10-3 East	05SWE02495	05SWE02496			X			X	X		X				
18-1- b	05SWE02495		05SWE02744									X			
Paul Band	05SWE02495		05SWE02741									X			
Nr Sailing Cub (oil foam)			05SWE02772												
Wab 50-1 (oil circled by loose boom)			05SWE02771												

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

						WATER									
						Analytical Lab									
						ARCV		Maxxam			McIntyre	ARCV			
Date and Site	Group Sample #	Composite Water Sample #	Subsurface Water Sample #	Tissue Sample #	Profiles (Light, Temp, DO, Cond, pH, Redox)	Nutrients	Major Ions etc.	Nutrients	Major Ions etc.	TP/TSS Bottom	Chl-a	ICPMS Metals Sub-surface	Ultra Trace Hg Sub-surf	ICPMS Metals Bottom	Ultra Trace Hg Bottom
September 7, 2005															
4-3 West	05SWE02850		05SWE02889		X							X			
10-3 East	05SWE02885		05SWE02886		X							X			
North East Paul Band	05SWE02885		05SWE02889									X			
Paul Band	05SWE02885		05SWE02887									X			
South West Paul Band	05SWE02885		05SWE02888									X			
September 13, 2005															
QA/QC with Golder	Golder provided triplicate water samples which we analyzed for EPP, VPP, and PAH.														
September 15, 2005															
4-3 West	05SWE02987		05SWE04193									X			
4-3 West	05SWE02987	05SWE02988			X			X	X		X				
10-3 East	05SWE02989		05SWE04194									X			
10-3 East	05SWE02989	05SWE02990			X			X	X		X				
Paul Band	05SWE02989		05SWE03186									X			
September 15, 2005															
Sampled littoral reed beds at 9 sites for DFO; sequential AENV samples taken															
II															
II-N															
II-S															
A															
B															
C															
D															
E															
G															
X															
October 2, 2005															
QA/QC with Golder	Golder provided three split sediment samples which AENV analyzed for EPP and VPP														

Notes

The trace organics samples for the Aug 4-5/2005 event were collected using our standard collection protocols (open bottle and imerse while filling).

The trace organics samples collected on all other dates were obtained by opening and closing all containers underwater to avoid surface film contamination. This upon recommedation from Dr. Goodman.

All samples were sent to analytical laboratories, except samples for archiving and biological samples

Plankton Net: Wisconsin, opening 30 cm or 5 inch inner diameter, Nytex mesh size 63 um

Small Ekman: 6x6x6 inches Large Ekman: 9x9x9 inches

Analytical Laboratories ARCV: Alberta Research Centre, Vegreville

McIntyre: Alberta Environment, Regional Services, Northern Region, Field Office

Maxxam: MAXXAM Analytics Inc., Calgary

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

Date and site	WATER									
	Phytoplankton			Zooplankton			Analytical Lab ARCV			
	Comp	Vertical Comp	Sub-surface Discreet	Comp-euphotic	Discreet Euphotic	Discreet Whole Column	EPP Sub-surface	VPP Sub-surface	PAH	Plankton Tissue EPP + PAH
August 4, 2005										
14-6			X		X		X - 4 Bottles	X - 4 vials		
17-1			X		X		X - 4 Bottles	X - 4 vials		
18-2		X			X		X - 4 Bottles	X - 4 vials		
20-1			X		X		X - 4 Bottles	X - 4 vials		
August 5, 2005										
8-3A			X		X		X - 4 Bottles	X - 4 vials		
10-3			X		X		X - 4 Bottles	X - 4 vials		
12-3			X		X		X - 4 Bottles	X - 4 vials		
12-1			X		X		X - 4 Bottles	X - 4 vials		
13-1			X		X		X - 4 Bottles	X - 4 vials		
14-2			X		X		X - 4 Bottles	X - 4 vials		
August 11, 2005										
2-2			X		x		X -2 bottles	X - 2 vials		
2-3			X		x		X -2 bottles	X - 2 vials		
5-4-A			X		x		X -2 bottles	X - 2 vials		
4-2					x		X -2 bottles	X - 2 vials		
4-3 (also comp site)	X			X (5 point)	X	X	X -2 bottles	X - 2 vials	X	
8-3-A			X		x		X -2 bottles	X - 2 vials		
6-1-A			X		x		X -2 bottles	X - 2 vials		
14-6			X		x		X -2 bottles	X - 2 vials		
14-2			X		x		X -2 bottles	X - 2 vials		
10-3 (also comp site)	X			X (5 point)	X	X	X -2 bottles	X - 2 vials	X	
17-1			X		x		X -2 bottles	X - 2 vials		
18-1-B			X		x		X -2 bottles	X - 2 vials		
18-2 (also comp site)	X			X (3 point)	X		X -2 bottles	X - 2 vials	X	

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

	WATER									
	Phytoplankton			Zooplankton			Analytical Lab			
							ARCV			
Date and site	Comp	Vertical Comp	Sub-surface Discreet	Comp-euphotic	Discreet Euphotic	Discreet Whole Column	EPP Sub-surface	VPP Sub-surface	PAH	Plankton Tissue EPP + PAH
August 16, 2005										
2-3			X		X		X -2 bottles	X - 2 vials		
4-3 (also comp site)	X		X	X	X	X	X -2 bottles	X - 2 vials	X	
8-3-A			X		X		X -2 bottles	X - 2 vials		
10-3 (also comp site)	X		X	X	X	X	X -2 bottles	X - 2 vials	X	
12-1			X		X		X -2 bottles	X - 2 vials		
14-6			X		X		X -2 bottles	X - 2 vials		
14-2			X		X		X -2 bottles	X - 2 vials		
Paul Band			X		X		X -2 bottles	X - 2 vials		
17-1			X		X		X -2 bottles	X - 2 vials		
Moonlight Bay			X		X		X	X		
August 23, 2005										
4-3 West (comp site)	X		X	X 15 point	X	X	X -1 bottle	X - 2 vials		X (based on 15 pt comp)
10-3 East (comp site)	X		X	X 15 point	X	X	X -1 bottle	X - 2 vials		X (based on 15 pt comp)
12-1			X		X		X -2 bottles	X - 2 vials		
18-1- b			X		X		X -2 bottles	X - 2 vials		
Paul Band			X		X		X -2 bottles	X - 2 vials		
August 30, 2005										
4-3 West (comp site)	X		X	X 10 point	X	X	X -1 bottle	X - 2 vials		
10-3 East (comp site)	X		X	X 10 point	X	X	X -1 bottle	X - 2 vials		
18-1- b			X		X		X -2 bottles	X - 2 vials		
Paul Band			X		X		X -2 bottles	X - 2 vials		
Nr Sailing Cub (oil foam)							X -2 bottles	X - 2 vials		
Wab 50-1 (oil circled by loose boom)							X -2 bottles	X - 2 vials		

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

	WATER									
	Phytoplankton			Zooplankton			Analytical Lab			
							ARCV			
Date and site	Comp	Vertical Comp	Sub-surface Discreet	Comp-euphotic	Discreet Euphotic	Discreet Whole Column	EPP Sub-surface	VPP Sub-surface	PAH	Plankton Tissue EPP + PAH
September 7, 2005										
4-3 West			X		X	X	X -1 bottle	X - 2 vials		
10-3 East			X		X	X	X -1 bottle	X - 2 vials		
North East Paul Band			X		X		X -1 bottle	X - 2 vials		
Paul Band			X		X		X -1 bottle	X - 2 vials		
South West Paul Band			X		X		X -1 bottle	X - 2 vials		
September 15, 2005										
4-3 West	X		X	X	X	X	X -1 bottle	X - 2 vials	x	
10-3 East	X		X	X	X	X	X -1 bottle	X - 2 vials	x	
Paul Band			X		X		X -1 bottle	X - 2 vials		

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

		SEDIMENTS									
				Analytical Lab							
				ARCV							
Date and site	Sediment Sample #	Invertebrates Small Ekman	Invertebrates Large Ekman	Metals Total	Metals Biol. Avail.	EPP/ HCE - 2 jars	VPP/ HCV - 2 vials	PAH	TOC/ Particle Size	Trace Org. Archive	Metals Archive
August 4, 2005											
14-6	05SWE01969	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
17-1	05SWE01968	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
18-2	05SWE01967		3X	X	X	X	X	X	X	2 jars - 2 vials	extra bag
20-1	05SWE01966		3X	X	X	X	X	X	X	2 jars - 2 vials	extra bag
August 5, 2005											
8-3A	05SWE02006	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
10-3	05SWE01973	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
12-3	05SWE01990	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
12-1	05SWE02022	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
13-1	05SWE02039	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
14-2	05SWE02051	3X		X	X	X	X	X	X	2 jars - 2 vials	extra bag
August 11, 2005											
2-2											
2-3											
5-4-A											
4-2											
4-3 (also comp site)											
8-3-A											
6-1-A											
14-6											
14-2											
10-3 (also comp site)											
17-1											
18-1-B											
18-2 (also comp site)											

Appendix 1. List of samples collected from the pelagic area in Wabamun Lake, 2005 (continued)

		SEDIMENTS									
				Analytical Lab							
				ARCV							
Date and site	Sediment Sample #	Invertebrates Small Ekman	Invertebrates Large Ekman	Metals Total	Metals Biol. Avail.	EPP/ HCE - 2 jars	VPP/ HCV - 2 vials	PAH	TOC/ Particle Size	Trace Org. Archive	Metals Archive
August 16, 2005											
2-3	05SWE02247	5X		X	X	X		X	X	2 jars	extra bag
4-3 (also comp site)	05SWE02248	5X		X	X	X		X	X	2 jars	extra bag
8-3-A	05SWE02252	5X		X	X	X		X	X	2 jars	extra bag
10-3 (also comp site)	05SWE02253	5X		X	X	X		X	X	2 jars	extra bag
12-1	05SWE02250	5X		X	X	X		X	X	2 jars	extra bag
14-6	05SWE02251	5X		X	X	X		X	X	2 jars	extra bag
14-2	05SWE02254	5X		X	X	X		X	X	2 jars	extra bag
Paul Band	05SWE02255	5X		X	X	X		X	X	2 jars	
17-1	05SWE02249	5X		X	X	X		X	X	2 jars	extra bag
Moonlight Bay	05SWE02249										
August 23, 2005											
4-3 West (comp site)											
10-3 East (comp site)											
12-1											
18-1- b											
Paul Band											
August 30, 2005											
4-3 West (comp site)											
10-3 East (comp site)											
18-1- b											
Paul Band											
Nr Sailing Cub (oil foam)											
Wab 50-1 (oil circled by loose boom)											

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005

Sampling Site	Sample Date	Volatile Priority Pollutants							
		95226 TOLUENE µg/L	100407 XYLENE µg/L	95234 M- + P- XYLENE µg/L	95221 ETHYL BENZENE µg/L	95233 O- XYLENE µg/L	100656 1,2,4- TRIMETHYL BENZENE µg/L	100397 TRIHALO METHANES µg/L	95200 BENZENE µg/L
Wabamun Moonlight Bay	04-Aug-05 12:50	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	04-Aug-05 14:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	04-Aug-05 16:15	0.11	0.12	0.08	L0.1	0.04	L0.1	L0.1	L0.1
Wabamun 14-6	04-Aug-05 18:45	0.21	0.74	0.52	0.09	0.22	0.2	L0.1	0.09
Wabamun 14-2	05-Aug-05 16:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.15	L0.1
Wabamun 13-1	05-Aug-05 15:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	2.25	L0.1
Wabamun 12-3	05-Aug-05 12:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	05-Aug-05 14:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	05-Aug-05 12:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	05-Aug-05 13:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05 12:50	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05 13:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05 14:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05 14:45	0.216	0.491	0.352	0.067	0.139	0.082	L0.1	0.124
Wabamun 5-4-A	11-Aug-05 15:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05 15:25	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05 16:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05 16:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05 17:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05 17:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05 18:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05 19:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05 19:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05 10:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05 11:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05 12:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05 14:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05 15:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05 15:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05 16:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05 16:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05 16:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05 17:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05 10:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05 13:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05 14:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05 15:15	0.098	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05 16:00	0.175	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05 10:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
	30-Aug-05 11:15	0.101	L0.1	L0.1	L0.1	L0.1	0.165	L0.1	L0.1
Wabamun West 10-3	30-Aug-05 11:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05 13:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05 15:40	0.417	0.12	0.12	0.03	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05 17:10	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	07-Sep-05 11:00	0.378	0.182	0.137	0.029	0.045	L0.1	L0.1	L0.1
Wabamun East 10-3	07-Sep-05 12:10	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	07-Sep-05 13:25	1.3	0.776	0.603	0.115	0.173	0.13	0.169	0.074
Wabamun nr Paul Band	07-Sep-05 14:05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	07-Sep-05 14:25	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05 10:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05 13:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05 16:00	0.938	1.218	0.891	0.156	0.327	0.891	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005

Sampling Site	Sample Date	Volatile Priority Pollutants							
		95636 TOLUENE µg/L	10060 XYLENE µg/L	95238 M + P XYLENE µg/L	95227 ETHYL BENZENE µg/L	95231 O- XYLENE µg/L	95636 1,2,4- TRIMETHYL BENZENE µg/L	50007 TRIHALO METHANES µg/L	10082 BENZENE µg/L
Wabamun Moonlight Bay	04-Aug-05 12:50	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	04-Aug-05 14:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	04-Aug-05 16:15	0.11	0.12	0.68	L0.1	0.04	L0.1	L0.1	L0.1
Wabamun 14-6	04-Aug-05 18:45	0.21	0.74	0.52	0.09	0.22	0.2	L0.1	0.09
Wabamun 14-2	05-Aug-05 16:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.15	L0.1
Wabamun 13-1	05-Aug-05 15:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	2.25	L0.1
Wabamun 12-3	05-Aug-05 12:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	05-Aug-05 14:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	05-Aug-05 12:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	05-Aug-05 13:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05 12:50	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05 13:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05 14:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05 14:45	0.216	0.491	0.352	0.067	0.139	0.082	L0.1	0.124
Wabamun 5-4-A	11-Aug-05 15:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05 15:25	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05 16:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05 16:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05 17:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05 17:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05 18:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05 19:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05 19:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05 10:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05 11:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05 12:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05 14:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05 15:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05 15:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05 16:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05 16:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05 16:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05 17:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05 10:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05 13:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05 14:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05 15:15	0.098	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05 16:00	0.175	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Sailing Club	30-Aug-05 10:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 50-1	30-Aug-05 11:15	0.101	L0.1	L0.1	L0.1	L0.1	0.165	L0.1	L0.1
Wabamun West 10-3	30-Aug-05 11:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05 13:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05 15:40	0.417	0.12	0.12	0.03	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05 17:10	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	07-Sep-05 11:00	0.378	0.182	0.137	0.029	0.045	L0.1	L0.1	L0.1
Wabamun East 10-3	07-Sep-05 12:10	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	07-Sep-05 13:25	1.3	0.776	0.603	0.115	0.173	0.13	0.169	0.074
Wabamun nr Paul Band	07-Sep-05 14:05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	07-Sep-05 14:25	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05 10:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05 13:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05 16:00	0.938	1.218	0.891	0.156	0.327	0.891	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants								
		95208 CHLOROFORM µg/L	95222 METHYLENE CHLORIDE µg/L	100649 NAPHTHALENE µg/L	100657 1,3,5-TRIMETHYL BENZENE µg/L	100634 BROMOBENZENE µg/L	100635 SEC-BUTYL BENZENE µg/L	100636 TERT-BUTYL BENZENE µg/L	100637 N-BUTYL BENZENE µg/L	100638 2-CHLOROTOLUENE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	0.15	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	2.25	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	0.24	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	2.02	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L2	0.716	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
	30-Aug-05	L0.1	L2	12	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	0.169	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L2	L0.1	0.179	L0.1	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants							
		100639 4-CHLORO TOLUENE µg/L	100640 1,2-DI BROMO-3-CHLORO PROPANE ug/L	100641 1,2-DIBROMO ETHANE µg/L	100642 CIS-1,2-DICHLORO ETHENE µg/L	100643 2,2-DI CHLORO PROPANE µg/L	100644 1,3-DI CHLORO PROPANE µg/L	100645 1,1-DI CHLORO PROPY LENE µg/L	100646 HEXA CHLORO BUTA DIENE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 18-2	4-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 17-1	4-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-6	4-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-2	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 13-1	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-3	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-1	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 10-3	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 8-3-A	5-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun West 4-3	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 4-2	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 2-2	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 2-3	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 5-4-A	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 6-1-A	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun Central 10-3	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 8-3-A	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-6	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-2	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 17-1	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 4-3 West	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 2-3	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 10-3	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 8-3-A	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-1	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-6	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-2	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 17-1	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun near Paul Band	16-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun West 4-3	23-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 10-3	23-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-1	23-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 18-1-B	23-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
[redacted]	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
[redacted]	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun West 10-3	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 10-3	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 18-1-B	30-Aug-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun West 4-3	7-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 10-3	7-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun West 4-3	15-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun East 10-3	15-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants							
		100647 ISO PROPYL BENZENE µg/L	100648 P-ISO PROPYL TOLUENE µg/L	100650 N-PROPYL BENZENE µg/L	100651 1,1,1,2-TETRA CHLORO ETHANE µg/L	100652 1,2,3-TRICHLORO BENZENE µg/L	100653 1,2,4-TRICHLORO BENZENE µg/L	100654 TRI CHLORO ETHYLENE µg/L	100655 1,2,3-TRICHLORO PROPANE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants								
		95201 DI CHLORO BROMO METH ANE µg/L	95202 BROMO FORM µg/L	95203 BROMO METHANE µg/L	95204 CARBON TETRA CHLO RIDE µg/L	95205 CHLORO BEN ZENE µg/L	95206 CHLORO ETHANE µg/L	95207 2-CHLORO ETHYLVINYL ETHER (2-CHLORO ETHOXY ETHYLENE) µg/L	95209 DI BROMO CHLORO METHANE µg/L	95210 DI BROMO METH ANE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants							
		95211 1,2-DI CHLORO BEN ZENE µg/L	95212 1,3-DI CHLORO BEN ZENE µg/L	95213 1,4-DI CHLORO BEN ZENE µg/L	95214 1,1-DI CHLORO ETHANE µg/L	95215 1,2-DI CHLORO ETHANE µg/L	95216 1,1-DI CHLORO ETHY LENE µg/L	95217 TRANS-1,2-DICHLORO ETHENE µg/L	95218 1,2-DICHLORO PROPANE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants								
		95219 CIS-1,3-DICHLORO PROPENE µg/L	95220 TRANS-1,3-DICHLORO PROPENE µg/L	95223 STY RENE µg/L	95224 1,1,2,2-TETRA CHLORO ETHANE µg/L	95225 TETRA CHLORO ETHY LENE µg/L	95227 1,1,1-TRI CHLORO ETHANE µg/L	95228 1,1,2-TRI CHLORO ETHANE µg/L	95229 TRI CHLORO FLUORO METHANE µg/L	95232 VINYL CHLORIDE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 18-2	4-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 17-1	4-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-6	4-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-2	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 13-1	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 12-3	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 12-1	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 10-3	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 8-3-A	5-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun West 4-3	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 4-2	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 2-2	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 2-3	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 5-4-A	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 6-1-A	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun Central 10-3	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 8-3-A	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-6	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-2	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 18-2 Site 1	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 17-1	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 18-1-B	11-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun Moonlight Bay	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 4-3 West	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 2-3	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 10-3	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 8-3-A	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 12-1	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-6	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 14-2	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 17-1	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun near Paul Band	16-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun West 4-3	23-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 10-3	23-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 12-1	23-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun nr Paul Band	23-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 18-1-B	23-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
[redacted]	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun West 10-3	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 10-3	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun nr Paul Band	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun 18-1-B	30-Aug-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun West 4-3	7-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 10-3	7-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun South West Paul Band	7-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun nr Paul Band	7-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun North East Paul Band	7-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun West 4-3	15-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun East 10-3	15-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5
Wabamun nr Paul Band	15-Sep-05	L0.3	L0.3	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.5

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants								
		100744 DI-N-BUTYL PHTHALATE µg/L	100748 BIS(2-ETHYL HEXYL) PHTHALATE µg/L	100745 DIETHYL PHTHALATE µg/L	100723 PHENANTHRENE µg/L	100743 BUTYL BENZYL PHTHALATE µg/L	100720 FLUORENE µg/L	100709 ACENAPHTHENE µg/L	100722 NAPHTHALENE µg/L	100711 ANTHRACENE µg/L
Wabamun Moonlight Bay	4-Aug-05	0.573	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	0.0202	0.1609	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	0.1174	L0.1	0.0378	0.0232	0.1268	L0.1
Wabamun 14-2	5-Aug-05	0.2359	L0.1	L0.1	L0.1	0.1324	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	1.396	0.2939	L0.1	L0.1	1.9071	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	0.1397	L0.1	L0.1	0.0219	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	0.4231	L0.1	L0.1	0.0353	0.1823	0.0108	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	0.144	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	0.108	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	0.159	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	0.15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	0.118	L0.1	L0.1	0.018	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	0.152	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	0.458	L0.1	0.117	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	0.132	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	0.314	3.88	0.36	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	0.339	L0.1	0.168	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	0.171	2.75	0.22	0.038	L0.1	0.011	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	0.252	5.62	0.324	0.061	L0.1	0.024	0.011	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	0.226	7.9	0.344	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	0.29	0.479	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	0.202	0.448	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	0.159	0.414	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	0.111	L0.1	0.143	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.1	0.128	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	0.203	0.248	0.177	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	0.148	0.475	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	0.121	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	0.125	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	0.361	1.84	L0.1	0.328	L0.1	L0.1	L0.1	L0.1	L0.1
	30-Aug-05	L0.1	2.59	L0.1	121	L0.1	27.7	17.7	2.45	9.93
Wabamun West 10-3	30-Aug-05	0.229	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	0.345	L0.1	0.123	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	0.346	L0.1	L0.1	L0.1	0.339	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	0.671	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	0.212	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	0.063	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	0.152	L0.1	0.268	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.1	0.151	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.1	0.14	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants							
		100698 4-CHLORO -3-METHYL PHENOL µg/L	100699 2-CHLORO PHENOL µg/L	100700 2,4-DI CHLORO PHENOL µg/L	100701 2,4- DIMETHYL PHENOL µg/L	100702 2-METHYL -4,6- DINITRO PHENOL µg/L	100703 2,4- DINITRO PHENOL µg/L	100704 2-NITRO PHENOL µg/L	100705 4-NITRO PHENOL µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants								
		100706 PENTA CHLORO PHENOL µg/L	100707 PHENOL µg/L	100708 2,4,6-TRI CHLORO PHENOL µg/L	100710 ACE NAPHTH YLENE µg/L	100712 BENZO(A) ANTHRA CENE µg/L	100713 BENZO(B) FLUORAN THENE µg/L	100714 BENZO(K) FLUOR ANTHENE µg/L	100715 BENZO (G,H,I) PERY LENE µg/L	100716 BENZO (A) PYRENE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants									
		100717 CHRYSENE µg/L	100718 DIBENZO (A,H) ANTHRACENE µg/L	100719 FLUORANTHENE µg/L	100721 INDENO (1,2,3-C,D) PYRENE µg/L	100724 PYRENE µg/L	100725 2-CHLORO NAPHTHALENE µg/L	100726 HEXACHLOROBENZENE µg/L	100727 HEXACHLOROBUTADIENE µg/L	100728 HEXACHLOROCYCLOPENTADIENE µg/L	100729 HEXACHLOROETHANE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 18-2	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 17-1	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-6	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-2	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 13-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 12-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 12-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 10-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 8-3-A	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun West 4-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 4-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 2-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 2-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 5-4-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 6-1-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun Central 10-3	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 8-3-A	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-6	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-2	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 17-1	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 4-3 West	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 2-3	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 10-3	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 8-3-A	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 12-1	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-6	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 14-2	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 17-1	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun near Paul Band	16-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun West 4-3	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 10-3	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 12-1	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 18-1-B	23-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
[redacted]	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
[redacted]	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun West 10-3	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 10-3	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun 18-1-B	30-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun West 4-3	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 10-3	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun West 4-3	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun East 10-3	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.5

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants									
		100730 1,2,4-TRI CHLORO BEN ZENE µg/L	100731 BENZI DINE µg/L	100732 2,4-DINITRO TOLUENE µg/L	100733 2,6-DI NITRO TOLU ENE µg/L	100734 1,2-DI PHENYL HYDRA ZINE µg/L	100735 NITRO BENZ ENE µg/L	100736 N-NITRO SODI PHENYL AMINE µg/L	100737 N-NITRO SO-DI-N-PROPYL AMINE µg/L	100738 4-BROMO PHENYL PHENYL ETHER µg/L	100739 BIS(2-CHLORO ETHOXY) METHANE µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	Extractable Priority Pollutants							
		100740 BIS(2-CHLORO ETHYL) ETHER µg/L	100741 BIS(2-CHLORO ISO PROPYL) ETHER µg/L	100742 4-CHLORO PHENYL PHENYL ETHER µg/L	100746 DIMETHYL PHTHA LATE µg/L	100747 DI-N-OCTYL PHTHA LATE µg/L	100749 ISO PHOR ONE µg/L	102608 MTBE (METHYL TERTIARY BUTYL ETHER µg/L	103632 2,3,4,6-TETRA CHLORO PHENOL µg/L
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 5-4-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 6-1-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Central 10-3	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-2 Site 1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 17-1	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 18-1-B	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun Moonlight Bay	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 4-3 West	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun near Paul Band	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
[redacted]	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-1-B	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun South West Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun North East Paul Band	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun West 4-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun East 10-3	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun nr Paul Band	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	PAH							
		103146 ACRIDINE µg/L	103144 ACENAPHTHENE µg/L	103145 ACENAPHTHYLENE µg/L	103160 FLUORENE µg/L	103162 NAPHTHALENE µg/L	103163 PHENANTHRENE µg/L	103142 3-METHYLCHOLANTHRENE µg/L	103143 7.12-DIMETHYLBENZ(A)ANTHRACENE µg/L	103147 ANTHRACENE µg/L
Wabamun Moonlight Bay	4-Aug-05									
Wabamun 18-2	4-Aug-05									
Wabamun 17-1	4-Aug-05									
Wabamun 14-6	4-Aug-05									
Wabamun 14-2	5-Aug-05									
Wabamun 13-1	5-Aug-05									
Wabamun 12-3	5-Aug-05									
Wabamun 12-1	5-Aug-05									
Wabamun 10-3	5-Aug-05									
Wabamun 8-3-A	5-Aug-05									
Wabamun West 4-3	11-Aug-05	0.014	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 4-2	11-Aug-05									
Wabamun 2-2	11-Aug-05									
Wabamun 2-3	11-Aug-05									
Wabamun 5-4-A	11-Aug-05									
Wabamun 6-1-A	11-Aug-05									
Wabamun Central 10-3	11-Aug-05	0.009	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	11-Aug-05									
Wabamun 14-6	11-Aug-05									
Wabamun 14-2	11-Aug-05									
Wabamun East 18-2 Site 1	11-Aug-05	L0.01	0.007	L0.01	0.016	0.006	0.043	L0.01	L0.01	L0.01
Wabamun East 17-1	11-Aug-05									
Wabamun East 18-1-B	11-Aug-05									
Wabamun Moonlight Bay	16-Aug-05									
Wabamun 4-3 West	16-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 2-3	16-Aug-05									
Wabamun East 10-3	16-Aug-05	L0.01	L0.01	0.003	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	16-Aug-05									
Wabamun 12-1	16-Aug-05									
Wabamun 14-6	16-Aug-05									
Wabamun 14-2	16-Aug-05									
Wabamun 17-1	16-Aug-05									
Wabamun near Paul Band	16-Aug-05									
Wabamun West 4-3	23-Aug-05									
Wabamun East 10-3	23-Aug-05									
Wabamun 12-1	23-Aug-05									
Wabamun nr Paul Band	23-Aug-05									
Wabamun 18-1-B	23-Aug-05									
[redacted]	30-Aug-05									
	30-Aug-05									
Wabamun West 10-3	30-Aug-05									
Wabamun East 10-3	30-Aug-05									
Wabamun nr Paul Band	30-Aug-05									
Wabamun 18-1-B	30-Aug-05									
Wabamun West 4-3	7-Sep-05									
Wabamun East 10-3	7-Sep-05									
Wabamun South West Paul Band	7-Sep-05									
Wabamun nr Paul Band	7-Sep-05									
Wabamun North East Paul Band	7-Sep-05									
Wabamun West 4-3	15-Sep-05									
Wabamun East 10-3	15-Sep-05									
Wabamun nr Paul Band	15-Sep-05									

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	PAH							
		103148 BENZO(A) ANTHRACENE µg/L	103149 BENZO(A) PYRENE µg/L	103150 BENZO (B,J,K) FLUORANTHENE µg/L	103151 BENZO(C) PHENANTHRENE µg/L	103152 BENZO(E) PYRENE µg/L	103153 BENZO (G,H,I) PERYLENE µg/L	103154 CHRYSENE µg/L	103155 DIBENZO (A,H) PYRENE µg/L
Wabamun Moonlight Bay	4-Aug-05								
Wabamun 18-2	4-Aug-05								
Wabamun 17-1	4-Aug-05								
Wabamun 14-6	4-Aug-05								
Wabamun 14-2	5-Aug-05								
Wabamun 13-1	5-Aug-05								
Wabamun 12-3	5-Aug-05								
Wabamun 12-1	5-Aug-05								
Wabamun 10-3	5-Aug-05								
Wabamun 8-3-A	5-Aug-05								
Wabamun West 4-3	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 4-2	11-Aug-05								
Wabamun 2-2	11-Aug-05								
Wabamun 2-3	11-Aug-05								
Wabamun 5-4-A	11-Aug-05								
Wabamun 6-1-A	11-Aug-05								
Wabamun Central 10-3	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	11-Aug-05								
Wabamun 14-6	11-Aug-05								
Wabamun 14-2	11-Aug-05								
Wabamun East 18-2 Site 1	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun East 17-1	11-Aug-05								
Wabamun East 18-1-B	11-Aug-05								
Wabamun Moonlight Bay	16-Aug-05								
Wabamun 4-3 West	16-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 2-3	16-Aug-05								
Wabamun East 10-3	16-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	16-Aug-05								
Wabamun 12-1	16-Aug-05								
Wabamun 14-6	16-Aug-05								
Wabamun 14-2	16-Aug-05								
Wabamun 17-1	16-Aug-05								
Wabamun near Paul Band	16-Aug-05								
Wabamun West 4-3	23-Aug-05								
Wabamun East 10-3	23-Aug-05								
Wabamun 12-1	23-Aug-05								
Wabamun nr Paul Band	23-Aug-05								
Wabamun 18-1-B	23-Aug-05								
[redacted]	30-Aug-05								
[redacted]	30-Aug-05								
Wabamun West 10-3	30-Aug-05								
Wabamun East 10-3	30-Aug-05								
Wabamun nr Paul Band	30-Aug-05								
Wabamun 18-1-B	30-Aug-05								
Wabamun West 4-3	7-Sep-05								
Wabamun East 10-3	7-Sep-05								
Wabamun South West Paul Band	7-Sep-05								
Wabamun nr Paul Band	7-Sep-05								
Wabamun North East Paul Band	7-Sep-05								
Wabamun West 4-3	15-Sep-05								
Wabamun East 10-3	15-Sep-05								
Wabamun nr Paul Band	15-Sep-05								

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	PAH						
		103156 DIBENZO (A,I) PYRENE µg/L	103157 DIBENZO (A,L) PYRENE µg/L	103158 DIBENZO (A,H) ANTHRA CENE µg/L	103159 FLUOR ANTHENE µg/L	103161 INDENO (1,2,3-C,D) PYRENE µg/L	103164 PYRENE µg/L	103761 RETENE (7-ISOPROPYL-1-METHYL PHENAN THRENE) µg/L
Wabamun Moonlight Bay	4-Aug-05							
Wabamun 18-2	4-Aug-05							
Wabamun 17-1	4-Aug-05							
Wabamun 14-6	4-Aug-05							
Wabamun 14-2	5-Aug-05							
Wabamun 13-1	5-Aug-05							
Wabamun 12-3	5-Aug-05							
Wabamun 12-1	5-Aug-05							
Wabamun 10-3	5-Aug-05							
Wabamun 8-3-A	5-Aug-05							
Wabamun West 4-3	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 4-2	11-Aug-05							
Wabamun 2-2	11-Aug-05							
Wabamun 2-3	11-Aug-05							
Wabamun 5-4-A	11-Aug-05							
Wabamun 6-1-A	11-Aug-05							
Wabamun Central 10-3	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	11-Aug-05							
Wabamun 14-6	11-Aug-05							
Wabamun 14-2	11-Aug-05							
Wabamun East 18-2 Site 1	11-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun East 17-1	11-Aug-05							
Wabamun East 18-1-B	11-Aug-05							
Wabamun Moonlight Bay	16-Aug-05							
Wabamun 4-3 West	16-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 2-3	16-Aug-05							
Wabamun East 10-3	16-Aug-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun 8-3-A	16-Aug-05							
Wabamun 12-1	16-Aug-05							
Wabamun 14-6	16-Aug-05							
Wabamun 14-2	16-Aug-05							
Wabamun 17-1	16-Aug-05							
Wabamun near Paul Band	16-Aug-05							
Wabamun West 4-3	23-Aug-05							
Wabamun East 10-3	23-Aug-05							
Wabamun 12-1	23-Aug-05							
Wabamun nr Paul Band	23-Aug-05							
Wabamun 18-1-B	23-Aug-05							
[redacted]	30-Aug-05							
[redacted]	30-Aug-05							
Wabamun West 10-3	30-Aug-05							
Wabamun East 10-3	30-Aug-05							
Wabamun nr Paul Band	30-Aug-05							
Wabamun 18-1-B	30-Aug-05							
Wabamun West 4-3	7-Sep-05							
Wabamun East 10-3	7-Sep-05							
Wabamun South West Paul Band	7-Sep-05							
Wabamun nr Paul Band	7-Sep-05							
Wabamun North East Paul Band	7-Sep-05							
Wabamun West 4-3	15-Sep-05							
Wabamun East 10-3	15-Sep-05							
Wabamun nr Paul Band	15-Sep-05							

Appendix 2 Trace organic analyses in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	CCME Hydrocarbons									
		F1 (C6-C10) µg/L	F1 Benzene µg/L	F1 Toluene µg/L	F1 Ethylbenzene µg/L	F1 m,p-Xylene µg/L	F1 o-Xylene µg/L	F2 (C10-C16) µg/L	F3 (C16-C34) µg/L	F4 (C34-C50) µg/L	F4+ (C50+) µg/L
Wabamun Moonlight Bay	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 18-2	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 17-1	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-6	4-Aug-05	ND	0.1	0.1	ND	0.1	ND	ND	ND	ND	ND
Wabamun 14-2	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 13-1	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-3	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-1	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 10-3	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 8-3-A	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun West 4-3	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 4-2	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 2-2	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 2-3	11-Aug-05	0.1	0.1	0.2	0.1	0.4	0.1	ND	ND	ND	ND
Wabamun 5-4-A	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 6-1-A	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun Central 10-3	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 8-3-A	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-6	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-2	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 18-2 Site 1	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 17-1	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 18-1-B	11-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun Moonlight Bay	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 4-3 West	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 2-3	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 10-3	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 8-3-A	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-1	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-6	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-2	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 17-1	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun near Paul Band	16-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun West 4-3	23-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 10-3	23-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-1	23-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun nr Paul Band	23-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 18-1-B	23-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
[redacted]	30-Aug-05	0.2	ND	0.1	ND	ND	ND	8000	17000	ND	ND
	30-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun West 10-3	30-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 10-3	30-Aug-05	ND	ND	0.4	ND	0.1	ND	ND	ND	ND	ND
Wabamun nr Paul Band	30-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 18-1-B	30-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun West 4-3	7-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 10-3	7-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun South West Paul Band	7-Sep-05	ND	ND	1	ND	ND	ND	ND	ND	ND	ND
Wabamun nr Paul Band	7-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun North East Paul Band	7-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun West 4-3	15-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun East 10-3	15-Sep-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun nr Paul Band	15-Sep-05	2.0	ND	0.9	0.2	0.9	0.3	ND	ND	ND	ND

Appendix 3 Total metal concentrations in Wabamun Lake water, 2005

Sampling Site	Sample Date/Time	101979 Mercury ng/L	103998 Silver µg/L	103999 Aluminum µg/L	80020 Arsenic µg/L	80021 Boron µg/L	80022 Barium µg/L	80023 Beryllium µg/L	80024 Bismuth µg/L	80025 Calcium mg/L	80026 Cadmium µg/L
Moonlight Bay	04-Aug-05 12:50	L0.6	0.0024	5.1	2.9	867	69.5	L0.003	L0.001	15.1	0.009
18-2	04-Aug-05 14:20	L0.6	0.0028	14	3.09	844	108	L0.003	0.0022	22.1	0.0104
17-1	04-Aug-05 16:15	L0.6	0.0025	17.8	3.09	863	111	L0.003	L0.001	23.3	0.01
14-6	04-Aug-05 18:45	L0.6	0.0022	17.6	3.24	887	115	L0.003	0.0011	24.2	0.0114
14-2	05-Aug-05 16:00	L0.6	0.0022	26.2	3.23	864	120	L0.003	L0.001	25	0.009
13-1	05-Aug-05 15:30	L0.6	0.0018	27.8	2.84	804	129	L0.003	0.0011	29.9	0.012
12-3	05-Aug-05 12:45	L0.6	0.0036	22.1	3.34	909	121	L0.003	0.0018	25.3	0.0024
12-1	05-Aug-05 14:30	L0.6	0.004	29	3.21	902	115	L0.003	0.0013	24.3	0.0109
8-3-A	05-Aug-05 13:00	L0.6	0.0023	18.6	3.21	890	122	0.004	0.0016	25.7	0.008
10-3	05-Aug-05 12:15	L0.6	0.0029	20	3.22	881	120	L0.003	0.0019	25.2	0.006
18-2	11-Aug-05 18:45		0.0024	22.6	3.19	883	105	L0.003	0.0011	20.4	0.014
18-2 Bottom	11-Aug-05 19:02	L0.6	0.0018	25.2	3.08	880	103	L0.003	0.0013	19.9	0.0111
18-1-B	11-Aug-05 19:30		0.0017	6.8	2.99	873	100	L0.003	0.0014	19.4	0.0115
17-1	11-Aug-05 19:15		0.0024	64	3.26	853	113	0.004	0.002	21.5	0.011
14-6	11-Aug-05 17:00		0.0027	33.5	3.39	837	120	0.003	0.0021	23	0.0096
14-2	11-Aug-05 17:15		0.0026	30.2	3.2	832	115	L0.003	0.0021	22.4	0.012
10-3	11-Aug-05 16:15		0.0031	42	3.35	810	121	L0.003	0.0031	23.2	0.015
10-3 Bottom	11-Aug-05 16:20	L0.6	0.0026	65	3.25	845	118	L0.003	0.0011	22.6	0.009
8-3-A	11-Aug-05 16:35		0.003	24.4	3.32	834	121	L0.003	0.0034	24.2	0.0081
6-1-A	11-Aug-05 15:25		0.0034	46	3.23	809	122	L0.003	0.006	24	0.012
5-4-A	11-Aug-05 15:00		0.0053	17.2	3.17	791	122	L0.003	0.01	23.5	0.009
4-3	11-Aug-05 12:50		0.0011	22.2	3.33	920	128	L0.003	0.001	24.7	0.008
4-3 Bottom	11-Aug-05 13:00	L0.6	0.0024	27	3.15	865	122	L0.003	L0.001	23.4	0.025
4-2	11-Aug-05 13:40		0.0014	35.7	3.38	925	130	L0.003	0.0016	24.7	0.012
2-3	11-Aug-05 14:45		0.0014	24.4	3.45	924	127	L0.003	0.0013	24.7	0.008
2-2	11-Aug-05 14:35		0.0009	32	3.37	880	126	L0.003	0.0015	23.9	0.011
Moonlight Bay	16-Aug-05 10:00		0.0021	4.38	3.06	961	58.2	L0.003	0.0018	13.1	0.0096
17-1	16-Aug-05 16:35		0.0013	33	3.45	891	118	L0.003	0.0014	23.4	0.011
14-6	16-Aug-05 16:00		0.0012	23.8	3.63	1000	124	L0.003	0.0018	25.3	0.0111
14-2	16-Aug-05 16:15		0.0011	12.4	3.3	956	110	L0.003	0.0015	23.1	0.01
Nr Paul Band	16-Aug-05 17:45		0.002	27.3	3.43	956	116	L0.003	0.002	23.5	0.0173
12-1	16-Aug-05 15:20		0.003	37.9	3.53	922	117	L0.003	0.0017	24	0.014
10-3	16-Aug-05 14:00		0.0016	25.4	3.5	915	119	L0.003	0.0014	24.2	0.0114
10-3 Bottom	16-Aug-05 14:15	L0.6	0.0013	19.2	3.46	919	118	L0.003	0.0013	24.5	0.0089
8-3-A	16-Aug-05 15:00		0.001	28.6	3.56	920	123	L0.003	0.0013	25.1	0.0113
4-3	16-Aug-05 11:00		0.0012	25	3.06	786	112	L0.003	0.0031	23.5	0.012
4-3 Bottom	16-Aug-05 11:15	L0.6	0.0031	35.4	3.4	928	125	L0.003	0.0012	25.7	0.0109
2-3	16-Aug-05 12:15		0.0012	53.1	3.46	920	123	0.004	0.0014	25.6	0.011
18-1-B	23-Aug-05 16:00		0.0015	10.6	3.12	790	100	L0.003	0.0015	21.4	0.01
Nr Paul Band	23-Aug-05 15:15		0.001	31	3.17	796	109	L0.003	0.0015	23.1	0.013
10-3	23-Aug-05 13:30		0.0017	16	3.24	807	113	L0.003	0.0015	23.3	0.0118
12-1	23-Aug-05 14:35		0.0013	30	3.24	832	115	L0.003	0.0017	24.1	0.0115
4-3	23-Aug-05 10:15		0.0019	10.1	3.27	830	116	L0.003	0.0019	24.8	0.0134
18-1-B	30-Aug-05 17:10		0.0005	20.5	3.26	814	109	L0.003	0.0021	21.7	0.0101
Nr Paul Band	30-Aug-05 15:40		0.0011	29.1	3.33	862	117	L0.003	0.0022	23.9	0.013
10-3	30-Aug-05 13:40		0.0018	65	3.59	848	122	L0.003	0.0022	24.7	0.013
4-3	30-Aug-05 11:40		0.0012	26.8	3.44	844	119	L0.003	0.0018	24.4	0.015
North East Paul Band	07-Sep-05 14:25		0.0022	21.5	3.41	838	116	L0.003	0.0033	24.5	0.013
Nr Paul Band	07-Sep-05 14:05		0.0017	22.6	3.47	886	117	L0.003	0.0023	25.1	0.01
South West Paul Band	07-Sep-05 13:25		0.0011	20	3.39	850	114	L0.003	0.0031	24.6	0.0135
10-3	07-Sep-05 12:10		0.0012	21.1	3.39	867	121	0.005	0.0016	25.4	0.0102
4-3	07-Sep-05 11:00		0.0007	26.8	3.31	844	113	L0.003	0.0019	24.3	0.0127
10-3	15-Sep-05 13:30		0.0023	45.7	3.12	872	109	0.0037	0.0016	22.8	0.0117
4-3	15-Sep-05 10:30		0.001	48.8	3.26	796	118	L0.003	0.0017	22.6	0.0099

Appendix 3 Total metal concentrations in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	80027 Chlorine mg/L	80028 Cobalt µg/L	80029 Chromium µg/L	80030 Copper µg/L	80031 Iron µg/L	80034 Lithium µg/L	80036 Manganese µg/L	80037 Molybdenum µg/L	80039 Nickel µg/L	80041 Lead µg/L
Moonlight Bay	4-Aug-05	11.1	0.042	0.23	0.666	L2	36.1	13.5	4.21	0.22	0.0352
18-2	4-Aug-05	10.2	0.029	0.26	0.72	L2	35.4	33.7	4.56	0.15	0.084
17-1	4-Aug-05	10.1	0.032	0.31	0.97	8	34.9	33.3	4.59	0.18	0.047
14-6	4-Aug-05	10.3	0.03	0.259	0.786	8	35.6	42	4.63	0.18	0.039
14-2	5-Aug-05	10.5	0.028	0.39	0.7	2.5	35.9	38.2	4.69	0.14	0.0405
13-1	5-Aug-05	10.6	0.0426	0.42	0.71	L2	33.2	36.3	5.71	0.16	0.045
12-3	5-Aug-05	10.6	0.028	0.44	0.7	5	37.5	48.6	4.69	0.25	0.041
12-1	5-Aug-05	10.5	0.033	0.41	0.93	5	35.9	43.1	4.62	0.18	0.053
8-3-A	5-Aug-05	10.5	0.0263	0.39	0.684	4	36.6	55.7	4.58	0.14	0.0371
10-3	5-Aug-05	10.3	0.027	0.51	0.632	3	36.4	49.8	4.55	0.15	0.036
18-2	11-Aug-05	10.9	0.034	0.26	0.9	7	34	44.2	4.52	0.29	0.079
18-2 Bottom	11-Aug-05	10.5	0.0279	0.259	0.92	3	34.6	43.4	4.41	0.13	0.069
18-1-B	11-Aug-05	10.8	0.024	0.22	0.616	L2	33.2	25.8	4.45	0.14	0.032
17-1	11-Aug-05	10.5	0.036	0.33	0.84	21.4	32.1	61.5	4.44	0.18	0.081
14-6	11-Aug-05	10.6	0.027	0.29	0.84	10.1	31.5	89.7	4.53	0.14	0.094
14-2	11-Aug-05	10.7	0.03	0.28	0.7	8.6	30.6	64.3	4.62	0.192	0.0487
10-3	11-Aug-05	10.5	0.0314	0.35	0.87	15	29.4	86	4.47	0.18	0.093
10-3 Bottom	11-Aug-05	10	0.0332	0.298	0.85	22	33.3	88.7	4.39	0.19	0.104
8-3-A	11-Aug-05	10.9	0.025	0.267	0.73	L2	30	68	4.6	0.11	0.0423
6-1-A	11-Aug-05	10.6	0.0281	0.336	0.75	12.7	28.8	75.5	4.48	0.13	0.094
5-4-A	11-Aug-05	10.3	0.0196	0.26	0.638	L2	28.7	80.2	4.34	0.15	0.0386
4-3	11-Aug-05	11.5	0.021	0.3	0.686	L2	41.6	83.7	4.58	0.12	0.0441
4-3 Bottom	11-Aug-05	10.1	0.032	0.292	2.4	L2	35	77	4.41	0.37	0.238
4-2	11-Aug-05	11.6	0.03	0.38	0.79	7	42.1	77.6	4.67	0.33	0.058
2-3	11-Aug-05	11.6	0.019	0.28	0.665	L2	42.2	81.7	4.63	0.091	0.267
2-2	11-Aug-05	11.1	0.027	0.35	0.69	5	40.6	88.9	4.44	0.25	0.053
Moonlight Bay	16-Aug-05	11.2	0.049	0.27	0.61	L2	41.8	6.98	4.06	0.24	0.0436
17-1	16-Aug-05	9.69	0.034	0.37	0.81	3	38.1	59	4.48	0.2	0.09
14-6	16-Aug-05	10	0.035	0.317	0.8	7	40.6	77.5	4.68	0.2	0.0442
14-2	16-Aug-05	9.75	0.033	0.24	0.71	3	39.1	30.4	4.74	0.196	0.0297
Nr Paul Band	16-Aug-05	9.79	0.04	0.33	0.84	7	40	60.6	4.55	0.16	0.065
12-1	16-Aug-05	9.7	0.035	0.3	0.87	15	38.5	65.9	4.45	0.199	0.0691
10-3	16-Aug-05	9.63	0.038	0.29	0.79	13	38.4	74	4.51	0.21	0.0583
10-3 Bottom	16-Aug-05	9.6	0.032	0.26	0.73	7	37.5	69.4	4.4	0.18	0.038
8-3-A	16-Aug-05	9.84	0.033	0.28	0.83	9	38.5	73	4.58	0.166	0.0466
4-3	16-Aug-05	9.6	0.037	0.05	0.522	14	34.4	84	4.31	0.17	0.044
4-3 Bottom	16-Aug-05	9.81	0.031	0.43	0.72	17	38.5	78.3	4.68	0.21	0.0491
2-3	16-Aug-05	9.72	0.037	0.31	0.75	21	38.5	72.4	4.72	0.19	0.0559
18-1-B	23-Aug-05	8.8	0.05	0.155	0.625	20	35.6	40.9	4.4	0.54	0.0569
Nr Paul Band	23-Aug-05	9	0.056	0.155	0.597	37	35.3	51	4.53	0.41	0.0506
10-3	23-Aug-05	8.84	0.0402	0.148	0.55	14	35.2	62.4	4.46	0.25	0.0424
12-1	23-Aug-05	8.8	0.051	0.197	0.56	39	35.6	66.7	4.63	0.37	0.0504
4-3	23-Aug-05	9.03	0.0415	0.17	0.48	17	36.7	62	4.66	0.25	0.0548
18-1-B	30-Aug-05	8	0.039	0.29	0.63	L2	37	46.2	4.45	0.03	0.0377
Nr Paul Band	30-Aug-05	8.4	0.037	0.34	0.74	L2	36.2	45	4.61	0.16	0.0538
10-3	30-Aug-05	8.6	0.032	0.312	0.7	L2	36.7	71	4.61	0.06	0.0797
4-3	30-Aug-05	8.4	0.0393	0.329	0.72	7	36.2	58	4.66	0.13	0.127
North East Paul Band	7-Sep-05	9	0.035	0.29	0.72	L2	41.9	47.3	4.41	0.19	0.0356
Nr Paul Band	7-Sep-05	9.4	0.037	0.246	0.64	L2	42.8	45.3	4.59	0.18	0.0341
South West Paul Band	7-Sep-05	9	0.033	0.244	0.67	L2	41.2	40	4.57	0.34	0.0413
10-3	7-Sep-05	9.3	0.03	0.23	0.64	L2	41.5	61.5	4.48	0.22	0.0345
4-3	7-Sep-05	8.79	0.03	0.25	0.6	L2	40.4	54	4.34	0.17	0.038
10-3	15-Sep-05	9.58	0.0353	0.237	0.736	12	44.2	53.5	4.19	0.192	0.0571
4-3	15-Sep-05	7.57	0.041	L0.04	0.746		35.5	54	4.46	0.365	0.0751

Appendix 3 Total metal concentrations in Wabamun Lake water, 2005 (continued)

Sampling Site	Sample Date	80043 Antimony µg/L	80044 Selenium µg/L	80046 Tin µg/L	80047 Strontium µg/L	80048 Thorium µg/L	80049 Titanium µg/L	80053 Thallium µg/L	80054 Uranium µg/L	80055 Vanadium µg/L	80056 Zinc µg/L
Moonlight Bay	4-Aug-05	0.211	0.19	0.062	213	0.0077	0.46	L0.0003	0.414	0.98	2.06
18-2	4-Aug-05	0.22	0.19	0.055	313	0.0079	0.8	L0.0003	0.433	1.09	1.36
17-1	4-Aug-05	0.209	0.2	0.0525	322	0.009	0.67	L0.0003	0.429	1.12	14.8
14-6	4-Aug-05	0.207	0.13	0.043	332	0.0092	1.2	L0.0003	0.434	1.08	9.66
14-2	5-Aug-05	0.212	0.16	0.1	339	0.0119	1.3	L0.0003	0.438	1.07	10.8
13-1	5-Aug-05	0.23	0.18	0.13	394	0.0149	0.84	0.0006	0.404	1.12	6.3
12-3	5-Aug-05	0.211	0.25	0.3	337	0.0235	0.98	0.0014	0.45	1.1	8.22
12-1	5-Aug-05	0.21	0.12	0.073	331	0.0139	0.92	L0.0003	0.436	1.11	3.54
8-3-A	5-Aug-05	0.205	0.18	0.13	340	0.0176	1.2	0.0003	0.443	0.988	12.1
10-3	5-Aug-05	0.199	0.15	0.2	338	0.032	1.03	0.0011	0.443	1.02	11
18-2	11-Aug-05	0.218	0.18	0.034	315	0.0087	1	0.0009	0.441	1.14	9.7
18-2 Bottom	11-Aug-05	0.2	L0.1	L0.03	306	0.0074	0.76	0.0003	0.42	1.09	3.7
18-1-B	11-Aug-05	0.207	0.18	0.0336	300	0.0103	0.6	0.0003	0.437	0.999	7.29
17-1	11-Aug-05	0.214	0.11	0.033	325	0.0139	2.7	0.0015	0.461	1.18	6.36
14-6	11-Aug-05	0.212	0.2	L0.03	340	0.0148	1.01	0.0006	0.459	1.09	9.18
14-2	11-Aug-05	0.207	0.18	0.036	333	0.0171	1.1	0.001	0.472	1.07	7.65
10-3	11-Aug-05	0.212	L0.1	0.0359	338	0.022	1.5	0.001	0.468	1.08	10.8
10-3 Bottom	11-Aug-05	0.195	0.16	L0.03	327	0.0089	1.41	L0.0003	0.435	1.1	4.92
8-3-A	11-Aug-05	0.196	0.21	0.041	347	0.029	1.2	0.0007	0.485	1.04	12.9
6-1-A	11-Aug-05	0.2	0.1	L0.03	345	0.046	1.2	0.001	0.473	1.01	17.7
5-4-A	11-Aug-05	0.192	0.18	0.031	337	0.1	0.68	0.0014	0.453	0.91	6.73
4-3	11-Aug-05	0.207	0.26	L0.03	366	0.0061	1	L0.0003	0.453	0.998	12.2
4-3 Bottom	11-Aug-05	0.196	0.19	L0.03	335	0.0066	0.94	0.0008	0.422	0.93	10.3
4-2	11-Aug-05	0.22	0.18	L0.03	371	0.0068	1.5	L0.0003	0.456	1.04	15.4
2-3	11-Aug-05	0.208	0.17	L0.03	368	0.0072	0.89	L0.0003	0.454	0.982	10.5
2-2	11-Aug-05	0.203	0.18	L0.03	359	0.0085	1.2	L0.0003	0.428	0.972	12.4
Moonlight Bay	16-Aug-05	0.209	0.28	L0.03	158	0.0052	0.38	0.0007	0.379	0.987	11
17-1	16-Aug-05	0.22	0.24	L0.03	288	0.004	1.14	0.0014	0.431	1.06	5.33
14-6	16-Aug-05	0.22	0.14	0.033	310	0.0044	0.92	0.0008	0.435	1.08	7.57
14-2	16-Aug-05	0.214	0.19	L0.03	296	0.0043	0.79	0.001	0.426	1.01	3.76
Nr Paul Band	16-Aug-05	0.222	0.25	0.034	288	0.0053	0.97	0.0009	0.434	1.09	7.29
12-1	16-Aug-05	0.236	0.11	L0.03	291	0.0035	1.2	0.0018	0.436	1.07	7.4
10-3	16-Aug-05	0.214	0.15	L0.03	298	0.0034	0.88	0.0013	0.428	1.03	6.33
10-3 Bottom	16-Aug-05	0.211	0.13	L0.03	297	0.0032	0.89	0.001	0.433	1.01	6.31
8-3-A	16-Aug-05	0.223	L0.1	L0.03	305	0.0038	1.2	0.0011	0.448	1.05	6.93
4-3	16-Aug-05	0.189	0.17	L0.03	312	0.021	1.05	0.0023	0.466	0.9	1.39
4-3 Bottom	16-Aug-05	0.201	0.18	L0.03	307	0.0026	1.04	0.001	0.444	0.97	2.12
2-3	16-Aug-05	0.207	0.15	L0.03	306	0.0033	1.9	0.001	0.449	1.04	4.33
18-1-B	23-Aug-05	0.218	0.14	L0.03	306	0.0071	0.69	0.0017	0.492	0.93	8
Nr Paul Band	23-Aug-05	0.215	0.16	L0.03	328	0.0067	1.5	0.0016	0.51	1.04	3.59
10-3	23-Aug-05	0.207	0.11	L0.03	328	0.0099	0.87	0.0015	0.5	0.96	7.67
12-1	23-Aug-05	0.214	0.19	L0.03	332	0.0071	1.23	0.0015	0.514	1.07	3.12
4-3	23-Aug-05	0.209	0.16	0.0325	334	0.0082	0.68	0.0013	0.519	0.96	3.07
18-1-B	30-Aug-05	0.209	0.18	0.034	302	0.0067	0.8	L0.0003	0.471	1.07	5.26
Nr Paul Band	30-Aug-05	0.221	0.15	0.043	321	0.0079	0.79	0.0005	0.501	1.12	9.6
10-3	30-Aug-05	0.224	0.21	0.052	330	0.0069	0.87	0.0004	0.494	1.08	6.54
4-3	30-Aug-05	0.219	0.16	0.038	324	0.0071	0.95	0.0006	0.489	1.12	9.8
North East Paul Band	7-Sep-05	0.213	0.24	L0.03	346	0.024	0.77	0.001	0.476	1.07	2.76
Nr Paul Band	7-Sep-05	0.221	0.28	L0.03	358	0.0151	0.72	0.0009	0.491	1.11	1.51
South West Paul Band	7-Sep-05	0.214	0.26	L0.03	348	0.018	0.65	0.0009	0.475	1.06	4.12
10-3	7-Sep-05	0.215	0.28	L0.03	355	0.0116	0.71	0.0009	0.471	1.03	4.71
4-3	7-Sep-05	0.198	0.21	L0.03	339	0.0136	0.818	0.0006	0.463	1.04	4.88
10-3	15-Sep-05	0.2	L0.1	L0.03	321	0.0039	L0.03	0.0023	0.423	1.02	5.93
4-3	15-Sep-05	0.204	L0.1	L0.03	327	0.0079	1.24	0.0023	0.434	0.632	2.07

Appendix 4 Sediment characteristics for samples taken from Wabamun Lake, 2005

Sampling Location	Sample Date	74469 Carbon Inorganic %	74470 Carbon Total %	74471 Carbon Organic %	% Sand	% Silt	% Clay
Moonlight Bay	4-Aug-05	6.1	18.1	12	11	68	21
Wabamun 18-2	4-Aug-05	2.6	12	9.4	5	79	17
Wabamun 17-1	4-Aug-05	2.1	12.6	10.5	8	72	20
Wabamun 14-6	4-Aug-05	1.4	15.2	13.8	26	60	14
Wabamun 14-2	5-Aug-05	1.2	3.9	2.7	50	42	8
Wabamun 13-1	5-Aug-05	3.4	9.9	6.5	20	61	19
Wabamun 12-3	5-Aug-05	1.1	16.6	15.5	5	77	18
Wabamun 12-1	5-Aug-05	1.4	14.8	13.4	9	75	16
Wabamun 10-3	5-Aug-05	0.9	17.4	16.5	8	73	19
Wabamun 8-3-A	5-Aug-05	0.8	19.7	18.9	12	68	20
Wabamun 17-1	16-Aug-05	2.1	12.9	10.8	1	73	26
Wabamun 14-6	16-Aug-05	1.4	15.4	14.1	13	71	16
Wabamun 14-2	16-Aug-05	3.5	8.9	5.4	7	79	14
Wabamun 12-1	16-Aug-05	1.3	15.2	13.9	4	77	20
Wabamun 10-3	16-Aug-05	0.9	18.2	17.3	3	76	20
Wabamun 8-3-A	16-Aug-05	0.7	19.7	19	15	56	29
Wabamun 2-3	16-Aug-05	0.9	19.8	18.9	17	56	28
Wabamun 4-3	16-Aug-05	0.7	20.6	19.9	14	66	19
Wabamun Nr Paul Band	16-Aug-05	2.1	3.4	1.3	84	7	9

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005

		PAH Scan											
Sampling Site	Sample Date	10532 NAPHTHALENE ng/g	10535 ACENAPHTHYLENE ng/g	10536 ACENAPHTHENE ng/g	10537 FLUORENE ng/g	10538 PHENANTHRENE ng/g	10539 ANTHRACENE ng/g	10540 ACRIDINE ng/g	10541 PYRENE ng/g	10542 FLUORANTHENE ng/g	10543 RETENE (7-ISOPROPYL-1-METHYLPHENANTHRENE) ng/g	10544 BENZO(C)PHENANTHRENE ng/g	10545 BENZO(A)ANTHRACENE ng/g
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L1	L1	L1	L1	3.3	L1	L1	6.8	7.7	L1	L1	L1
Wabamun 18-2	4-Aug-05	L1	L1	L1	L1	21.9	4.4	L1	72.2	13	L1	13.6	110
Wabamun 17-1	4-Aug-05	L1	L1	L1	L1	L1	L1	L1	8.4	L1	L1	L1	10.8
Wabamun 14-6	4-Aug-05	L1	L1	L1	L1	11.1	L1	L1	27.1	L1	11	L1	39.9
Wabamun 10-3	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	8.3	L1	L1	L1	8.3
Wabamun 12-3	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	7.7
Wabamun 8-3-A	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Wabamun 12-1	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	8.4	4.7	L1	L1	6.8
Wabamun 13-1	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Wabamun 14-2	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Wabamun 2-3	16-Aug-05	4.5	L1	L1	4.4	5.5	L1	L1	3.7	2.5	2.8	L1	5.1
Wabamun 4-3	16-Aug-05	4.4	L1	L1	5.4	5.9	L1	L1	5.9	3.2	4.8	L1	10.7
Wabamun 8-3-A	16-Aug-05	2.5	L1	L1	4.2	6.4	L1	L1	6.8	3.5	3.8	L1	7.1
Wabamun 10-3	16-Aug-05	3.4	L1	L1	3.9	5.2	L1	L1	5.3	2.5	2.8	L1	5.2
Wabamun 14-6	16-Aug-05	2.1	L1	L1	2	5.4	L1	L1	9.6	3.7	1.9	L1	9.4
Wabamun 12-1	16-Aug-05	3.6	L1	L1	2.7	4.2	L1	L1	5.2	2.5	3.7	L1	5.5
Wabamun 14-2	16-Aug-05	1.9	L1	L1	1.6	2	L1	L1	1.8	1.3	6.7	L1	1
Wabamun nr Paul Band	16-Aug-05	L1	L1	L1	0.46	0.77	2.8	L1	0.82	1.6	1.2	L1	0.15
Wabamun 17-1	16-Aug-05	2.3	L1	L1	2.2	4	L1	L1	6.2	2.6	3.6	L1	6.2

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		PAH Scan											
Sampling Site	Sample Date	10546 CHRYSENE g/g	10547 BENZO (B,J,K) FLUORANTHENE ng/g	10548 7,12-DIMETHYLBENZ(A)ANTHRACENE ng/g	10549 BENZO (E) PYRENE ng/g	10550 BENZO (A) PYRENE ng/g	10553 3-METHYLCHOLANTHRENE ng/g	10554 INDENO (1,2,3-C,D) PYRENE ng/g	10555 DIBENZO (A,H)ANTHRACENE ng/g	10556 BENZO (G,H,I) PERYLENE g/g	10557 DIBENZO (A,L) PYRENE ng/g	10558 DIBENZO (A,I) PYRENE ng/g	10559 DIBENZO (A,H) PYRENE µg/g
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	7.6	10.2	L1	7.5	6.8	L1	L1	L1	7.9	L1	L1	L1
Wabamun 18-2	4-Aug-05	174	87.1	25.4	301	238	33.2	41.6	32.8	287	15.3	L1	L1
Wabamun 17-1	4-Aug-05	18.6	12.2	L1	30.8	28	L1	5.3	L1	32.4	L1	L1	L1
Wabamun 14-6	4-Aug-05	77.3	37.5	L1	109	99.8	L1	20	14.4	111	L1	L1	L1
Wabamun 10-3	5-Aug-05	16.4	10.5	L1	25.3	25.6	L1	L1	L1	25.5	L1	L1	L1
Wabamun 12-3	5-Aug-05	13.9	9.3	L1	25.4	24.1	L1	L1	L1	25.4	L1	L1	L1
Wabamun 8-3-A	5-Aug-05	5.2	L1	L1	7.9	9.7	L1	L1	L1	8.7	L1	L1	L1
Wabamun 12-1	5-Aug-05	12	9.7	L1	18.4	22.6	L1	L1	L1	19.4	L1	L1	L1
Wabamun 13-1	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Wabamun 14-2	5-Aug-05	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Wabamun 2-3	16-Aug-05	4.6	3.2	L1	9	7.3	L1	2.2	L1	10.1	L1	L1	L1
Wabamun 4-3	16-Aug-05	9.4	5.3	L1	20.7	15.2	L1	4.1	L1	19.9	L1	L1	L1
Wabamun 8-3-A	16-Aug-05	11.8	5.4	L1	11.4	19.2	L1	5.2	4.5	10.3	L1	L1	L1
Wabamun 10-3	16-Aug-05	9.1	5.2	L1	20.5	15.2	L1	4.2	3.8	23.8	L1	L1	L1
Wabamun 14-6	16-Aug-05	18.9	10	L1	10.4	10	L1	1.8	7.2	10.3	L1	L1	L1
Wabamun 12-1	16-Aug-05	9	5.2	L1	18.9	14.4	L1	4.1	3.4	19.2	L1	L1	L1
Wabamun 14-2	16-Aug-05	1.2	1.6	L1	2	1.6	L1	L1	L1	2.4	L1	L1	L1
Wabamun nr Paul Band	16-Aug-05	0.43	0.54	L1	0.5	0.32	L1	L1	L1	0.56	L1	L1	L1
Wabamun 17-1	16-Aug-05	11.4	6.5	L1	24	18.8	L1	5.1	4.7	24.8	L1	L1	L1

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants Scan											
		80427 1.2.4-TRICHLOROBENZENE µg/g	80428 1.2-DIPHENYLHYDRAZINE µg/g	80429 2.3.4.6-TETRACHLOROPHENOL µg/g	80430 2.4.6-TRICHLOROPHENOL µg/g	80431 2.4-DICHLOROPHENOL µg/g	80432 2.4-DIMETHYLPHENOL µg/g	80433 2.4-DINITROPHENOL µg/g	80434 2.4-DINITROTOLUENE µg/g	80435 2.6-DINITROTOLUENE µg/g	80436 2-CHLORONAPHTHALENE µg/g	80437 2-CHLOROPHENOL µg/g	80438 2-METHYL-4.6-DINITROPHENOL µg/g
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 18-2	4-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 17-1	4-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 14-6	4-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 10-3	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 12-3	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 8-3-A	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 12-1	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 13-1	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 14-2	5-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 2-3	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 4-3	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 8-3-A	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 10-3	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 14-6	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 12-1	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 14-2	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun nr Paul Band	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2
Wabamun 17-1	16-Aug-05	L2	L2	L2	L2	L2	L4	L2	L2	L2	L2	L4	L2

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan											
Sampling Site	Sample Date	80439 2-NITRO PHENOL µg/g	80440 4-BROMO PHENYL PHENYL ETHER µg/g	80441 4-CHLORO-3-METHYL PHENOL µg/g	80442 4-CHLORO PHENYL PHENYL ETHER µg/g	80443 4-NITRO PHENOL µg/g	80444 ACENAPHTHENE µg/g	80445 ACENAPHTHYLENE µg/g	80446 ANTHRACENE µg/g	80447 BENZIDINE µg/g	80448 BENZO(A) ANTHRACENE µg/g	80449 BENZO(A) PYRENE µg/g	80450 BENZO(B) FLUORANTHENE µg/g
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 18-2	4-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	0.1	0.226	L2
Wabamun 17-1	4-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 14-6	4-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 10-3	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 12-3	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 8-3-A	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 12-1	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 13-1	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 14-2	5-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 2-3	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 4-3	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 8-3-A	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 10-3	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 14-6	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 12-1	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 14-2	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun nr Paul Band	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2
Wabamun 17-1	16-Aug-05	L2	L2	L2	L2	L2	L2	L2	L2	L4	L2	L2	L2

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan											
Sampling Site	Sample Date	80451 BENZO (G,H,I) PERYLENE µg/g	80452 BENZO(K) FLUOR ANTHENE µg/g	80453 BIS(2-CHLOR OETHOXY) METHANE µg/g	80454 BIS(2-CHLORO ETHYL) ETHER µg/g	80455 BIS(2-CHLORO ISOPROPYL) ETHER µg/g	80456 BIS(2-ETHYL HEXYL) PHTHA LATE µg/g	80457 BUTYL BENZYL PHTHA LATE µg/g	80458 CHRY SENE µg/g	80459 DI-N-BUTYL PHTHA LATE µg/g	80460 DI-N-OCTYL PHTHA LATE µg/g	80461 DIBENZO (A,H)ANTH RACENE µg/g	80462 DIETHYL PHTHA LATE µg/g
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 18-2	4-Aug-05	L4	L2	L2	L2	L2	L2	L2	0.161	L2	L2	L5	L2
Wabamun 17-1	4-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 14-6	4-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 10-3	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 12-3	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 8-3-A	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 12-1	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 13-1	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 14-2	5-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun 2-3	16-Aug-05	L4	L2	L2	L2	L2	1.2	L2	L2	L2	L2	L5	L2
Wabamun 4-3	16-Aug-05	L4	L2	L2	L2	L2	1.21	L2	L2	L2	L2	L5	L2
Wabamun 8-3-A	16-Aug-05	L4	L2	L2	L2	L2	0.745	L2	L2	L2	L2	L5	L2
Wabamun 10-3	16-Aug-05	L4	L2	L2	L2	L2	0.565	L2	L2	L2	L2	L5	L2
Wabamun 14-6	16-Aug-05	L4	L2	L2	L2	L2	0.31	L2	L2	L2	L2	L5	L2
Wabamun 12-1	16-Aug-05	L4	L2	L2	L2	L2	0.253	L2	L2	L2	L2	L5	L2
Wabamun 14-2	16-Aug-05	L4	L2	L2	L2	L2	L2	L2	L2	L2	L2	L5	L2
Wabamun nr Paul Band	16-Aug-05	L4	L2	L2	L2	L2	0.054	L2	L2	L2	L2	L5	L2
Wabamun 17-1	16-Aug-05	L4	L2	L2	L2	L2	0.216	L2	L2	L2	L2	L5	L2

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan												
Sampling Site	Sample Date	80463 DIMETHYL PHTHA LATE µg/g	80464 FLUOR ANTH ENE µg/g	80465 FLUO RENE µg/g	80466 HEXA CHLORO BENZENE µg/g	80467 HEXA CHLORO BUTA DIENE µg/g	80468 HEXA CHLORO CYCLOPEN TADIENE µg/g	80469 HEXA CHLORO ETHANE µg/g	80470 INDENO (1,2,3-C,D) PYRENE µg/g	80471 ISOPHO RONE µg/g	80472 N-NITRO SO-DI-N- PROPYL AMINE µg/g	80473 N-NITRO SODI PHENYL AMINE µg/g	80474 NAPH THALENE µg/g	80475 NITRO BEN ZENE µg/g
Sediment Samples														
Wabamun Moonlight Bay	4-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 18-2	4-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 17-1	4-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 14-6	4-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 10-3	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 12-3	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 8-3-A	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 12-1	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 13-1	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 14-2	5-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 2-3	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 4-3	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 8-3-A	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 10-3	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 14-6	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 12-1	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 14-2	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun nr Paul Band	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2
Wabamun 17-1	16-Aug-05	L2	L2	L2	L2	L5	L2	L5	L2	L2	L4	L2	L2	L2

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan												
Sampling Site	Sample Date	80476 PENTA CHLORO PHENOL µg/g	80477 PHEN ANTH RENE µg/g	80478 PHENOL µg/g	80479 PYRENE µg/g	80480 1,1,1,2-TETRA CHLORO ETHANE mg/kg	80481 1,1,1-TRICHLOR OETHANE mg/kg	80482 1,1,2,2-TETRA CHLORO ETHANE mg/kg	80483 1,1,2-TRICHLOR OETHANE mg/kg	80484 1,1-DI CHLORO ETHANE mg/kg	80485 1,1-DI CHLORO ETHY LENE mg/kg	80486 1,1-DI CHLOR OPROP YLENE mg/kg	80487 1,2,3-TRI CHLORO BENZENE mg/kg	80488 1,2,3-TRI CHLORO PRO PANE mg/kg
Sediment Samples														
Wabamun Moonlight Bay	4-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L2	0.021	L2	0.067	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L2	L2	L2	L2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05	L2	L2	L2	L2									
Wabamun 4-3	16-Aug-05	L2	L2	L2	L2									
Wabamun 8-3-A	16-Aug-05	L2	L2	L2	L2									
Wabamun 10-3	16-Aug-05	L2	L2	L2	L2									
Wabamun 14-6	16-Aug-05	L2	L2	L2	L2									
Wabamun 12-1	16-Aug-05	L2	L2	L2	L2									
Wabamun 14-2	16-Aug-05	L2	L2	L2	L2									
Wabamun nr Paul Band	16-Aug-05	L2	L2	L2	L2									
Wabamun 17-1	16-Aug-05	L2	L2	L2	L2									

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan											
Sampling Site	Sample Date	80489 1,2,4-TRI CHLORO BENZENE mg/kg	80490 1,2,4-TRI METHYL BENZENE mg/kg	80491 1,2-DI BROMO-3 -CHLORO PROPANE mg/kg	80492 1,2-DIBRO MOETH ANE mg/kg	80493 1,2-DI CHLORO BENZENE mg/kg	80494 1,2-DI CHLORO ETHANE mg/kg	80495 1,2-DI CHLORO PROPANE mg/kg	80496 1,3,5-TRI METHYL BENZENE mg/kg	80497 1,3-DI CHLORO BENZENE mg/kg	80498 1,3-DI CHLORO PROPANE mg/kg	80499 1,4-DI CHLORO BENZENE mg/kg	80500 2,2-DI CHLORO PROP ANE mg/kg
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05												
Wabamun 4-3	16-Aug-05												
Wabamun 8-3-A	16-Aug-05												
Wabamun 10-3	16-Aug-05												
Wabamun 14-6	16-Aug-05												
Wabamun 12-1	16-Aug-05												
Wabamun 14-2	16-Aug-05												
Wabamun nr Paul Band	16-Aug-05												
Wabamun 17-1	16-Aug-05												

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan											
Sampling Site	Sample Date	80501 2-CHLOROETHYL VINYLETHER (2-CHLOROETHOXY ETHYLENE) mg/kg	80502 2-CHLORO TOLUENE mg/kg	80503 4-CHLORO TOLUENE mg/kg	80504 BEN ZENE mg/kg	80505 BROMO BENZENE mg/kg	80506 BROMO DICHLORO METHANE mg/kg	80507 BROMO FORM mg/kg	80508 BROMO METHANE mg/kg	80509 CARBON TETRA CHLORIDE mg/kg	80510 CHLORO BENZENE mg/kg	80511 CHLORO ETHANE mg/kg	80512 CHLORO FORM mg/kg
Sediment Samples													
Wabamun Moonlight Bay	4-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 2-3	16-Aug-05												
Wabamun 4-3	16-Aug-05												
Wabamun 8-3-A	16-Aug-05												
Wabamun 10-3	16-Aug-05												
Wabamun 14-6	16-Aug-05												
Wabamun 12-1	16-Aug-05												
Wabamun 14-2	16-Aug-05												
Wabamun nr Paul Band	16-Aug-05												
Wabamun 17-1	16-Aug-05												

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		Volatile Priority Pollutants Scan												
Sampling Site	Sample Date	80513 DIBRO MOCHLOR OMETH ANE mg/kg	80514 DIBRO MOME THANE mg/kg	80515 ETHYL BEN ZENE mg/kg	80516 HEXA CHLORO BUTA DIENE mg/kg	80517 ISOPROP YLBENZ ENE mg/kg	80518 MTBE(METH YL TERTIARY BUTYL ETHER) mg/kg	80519 METH YLENE CHLO RIDE mg/kg	80520 NAPH THA LENE mg/kg	80521 STY RENE mg/kg	80522 TRIHALO METH ANES mg/kg	80523 TETRA CHLORO ETHYLENE mg/kg	80524 TOLUENE mg/kg	80525 TRICHL OROETH YLENE mg/kg
Sediment Samples														
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.677	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 18-2	4-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.769	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 17-1	4-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.712	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 14-6	4-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.996	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 10-3	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	1.45	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 12-3	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	1.01	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 8-3-A	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	1.42	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 12-1	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	1.03	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 13-1	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.412	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 14-2	5-Aug-05	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	0.222	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1
Wabamun 2-3	16-Aug-05													
Wabamun 4-3	16-Aug-05													
Wabamun 8-3-A	16-Aug-05													
Wabamun 10-3	16-Aug-05													
Wabamun 14-6	16-Aug-05													
Wabamun 12-1	16-Aug-05													
Wabamun 14-2	16-Aug-05													
Wabamun nr Paul Band	16-Aug-05													
Wabamun 17-1	16-Aug-05													

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

Sampling Site	Sample Date	Volatile Priority Pollutants Scan													
		80526 TRICHLOROFLUORO METHANE mg/kg	80527 VINYL CHLORIDE mg/kg	80528 XYLENES (O,M,P) mg/kg	80529 CIS-1,2-DICHLOROETHENE mg/kg	80530 CIS-1,3-DICHLOROPROPENE mg/kg	80531 M- + P-XYLENE mg/kg	80532 N-BUTYLBENZENE mg/kg	80533 N-PROPYLBENZENE mg/kg	80534 O-XYLENE mg/kg	80535 P-ISOPROPYLTOLUENE mg/kg	80536 SEC-BUTYLBENZENE mg/kg	80537 TERT-BUTYLBENZENE mg/kg	80538 TRANS-1,2-DICHLOROETHENE mg/kg	80539 TRANS-1,3-DICHLOROPROPENE mg/kg
Sediment Samples															
Wabamun Moonlight Bay	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 18-2	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 17-1	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-6	4-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 10-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-3	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 8-3-A	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 12-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 13-1	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 14-2	5-Aug-05	L0.1	L0.5	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3
Wabamun 2-3	16-Aug-05														
Wabamun 4-3	16-Aug-05														
Wabamun 8-3-A	16-Aug-05														
Wabamun 10-3	16-Aug-05														
Wabamun 14-6	16-Aug-05														
Wabamun 12-1	16-Aug-05														
Wabamun 14-2	16-Aug-05														
Wabamun nr Paul Band	16-Aug-05														
Wabamun 17-1	16-Aug-05														

Appendix 5 Trace organic analyses in Wabamun Lake sediments, 2005 (continued)

		CCME Hydrocarbons									
Sampling Site	Sample Date	F1 (C6-C10) µg/kg	F1 Benzene µg/kg	F1 Toluene µg/kg	F1 Ethyl benzene µg/kg	F1 m,p-Xylene µg/kg	F1 o-Xylene µg/kg	F2 (C10-C16) µg/kg	F3 (C16-C34) µg/kg	F4 (C34-C50) µg/kg	F4+ (C50+) µg/kg
Sediment Samples											
Wabamun Moonlight Bay	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 18-2	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 17-1	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-6	4-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 10-3	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-3	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 8-3-A	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 12-1	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 13-1	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 14-2	5-Aug-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Wabamun 2-3	16-Aug-05										
Wabamun 4-3	16-Aug-05										
Wabamun 8-3-A	16-Aug-05										
Wabamun 10-3	16-Aug-05										
Wabamun 14-6	16-Aug-05										
Wabamun 12-1	16-Aug-05										
Wabamun 14-2	16-Aug-05										
Wabamun nr Paul Band	16-Aug-05										
Wabamun 17-1	16-Aug-05										

Appendix 6 Total (harsh extraction) and extractable (mild extraction) of metals in Wabamun Lake sediments

Sampling Site	Sample Date/Time	103471 Mercury Total µg/g	103474 Silver Total µg/g	103475 Aluminum Total µg/g	103476 Arsenic Total µg/g	10347 Boron Total µg/g	103478 Barium Total µg/g	103479 Beryllium Total µg/g	103480 Bismuth Total µg/g	103481 Calcium Total µg/g	103483 Chlorine Total µg/g	103485 Chromium Total µg/g	103486 Copper Total µg/g	103489 Lithium Total µg/g	103491 Manganese Total µg/g	103492 Molybdenum Total µg/g
Wabamun Moonlight Bay	04-Aug-05 12:50	0.005	0.067	3318	13	53.7	836	0.27	0.12	226415	7096	9.23	47.6	4.96	309	14.6
Wabamun 18-2	04-Aug-05 14:20	0.031	0.399	27169	18.4	81	483	L4.09	0.198	83470	14116	57.3	240	18.4	655	6.14
Wabamun 17-1	04-Aug-05 16:15	0.024	0.367	30269	16.1	83.6	483	L3.96	0.206	76070	10856	52.3	88	17.9	741	11.6
Wabamun 14-6	04-Aug-05 18:45	0.034	0.423	37523	19.4	102	437	L3.64	0.256	48087	13479	59.4	128	20.1	667	8.85
Wabamun 14-2	05-Aug-05 16:00	0.013	0.23	24435	5.59	30.4	607	0.7	0.079	58310	4720	20.5	13.5	10.7	355	2.48
Wabamun 13-1	05-Aug-05 15:30	0.034	0.217	27155	10.4	61	467	L3.8	0.134	101025	6153	32.9	25.9	15	801	4.63
Wabamun 12-3	05-Aug-05 12:45	0.055	0.438	38979	18.9	117	474	L4.05	0.245	39587	11426	58.3	102	21.8	652	7.05
Wabamun 12-1	05-Aug-05 14:30	0.047	0.385	39615	15.5	97.7	458	1.25	0.239	49615	8654	52.3	86.2	19.8	581	8.65
Wabamun 10-3	05-Aug-05 12:15	0.045	0.414	42703	17.3	117	456	L4.15	0.251	37065	13806	61	119	22.2	568	9.8
Wabamun 8-3-A	05-Aug-05 13:00	0.046	0.371	38398	16.8	126	415	L4.15	0.25	30552	10087	56	116	20.8	544	10.2
Wabamun 17-1	16-Aug-05 19:00	0.027	0.328	38609	11.4	70	401	0.84	0.225	77599	2760	34	65	17.5	722	10.2
Wabamun 14-6	16-Aug-05 15:10	0.058	0.361	41362	17.5	70	490	0.93	0.306	54173	3360	37	120	15.1	663	6.37
Wabamun 14-2	16-Aug-05 16:45	0.039	0.193	31121	9.58	38.4	475	0.49	0.141	122234	3808	19	30.5	9.94	758	4.21
Wabamun 12-1	16-Aug-05 16:00	0.040	0.343	42433	9.65	68	417	0.71	0.197	31018	2967	30.4	46.9	14.5	620	6.9
Wabamun 10-3	16-Aug-05 14:15	0.069	0.351	42324	17.5	84	470	0.78	0.307	39813	3874	36.2	123	14.9	570	6.92
Wabamun 8-3-A	16-Aug-05 13:35	0.069	0.342	43040	20.2	88	434	0.99	0.323	31446	4033	42.6	142	15.4	485	8.96
Wabamun 2-3	16-Aug-05 10:50	0.117	0.374	42982	21.3	97	525	0.95	0.3	32636	8254	52.1	150	19.7	415	23.2
Wabamun 4-3	16-Aug-05 12:30	0.130	0.38	43784	21.3	107	485	0.96	0.337	37256	9930	50.4	156	19	426	26.5
Wabamun Nr Paul Band	16-Aug-05 17:40	0.006	0.117	17933	1.8	13.5	374	0.38	0.033	22416	2545	7.2	3.1	4.59	264	0.193

Appendix 6 Total (harsh extraction) and extractable (mild extraction) of metals in Wabamun Lake sediments (continued)

Sampling Site	Sample Date	103499 Lead Total µg/g	103501 Antimony Total µg/g	103504 Tin Total µg/g	103506 Thorium Total µg/g	103507 Titanium Total µg/g	103508 Thallium Total µg/g	103509 Uranium Total µg/g	103510 Vanadium Total µg/g	103511 Zinc Total µg/g	103515 Iron Total µg/g	103516 Cobalt Total µg/g	103517 Nickel Total µg/g	103521 Selenium Total µg/g	103522 Strontium Total µg/g	103523 Cadmium Total µg/g
Wabamun Moonlight Bay	4-Aug-05	28.7	0.759	0.92	1.4	388	0.111	3.92	28.2	39.1	2929	2.92	7.2	2.1	763	0.196
Wabamun 18-2	4-Aug-05	19.4	1.35	6.3	2.5	2140	0.369	3.27	95.7	191	13134	10.3	24.1	4.1	392	0.366
Wabamun 17-1	4-Aug-05	18.8	1.13	2.99	2.68	2227	0.376	3.66	87.2	104	14818	9.47	23.3	2.59	334	0.313
Wabamun 14-6	4-Aug-05	23.4	2.05	3.79	5.43	2346	0.415	4.88	99.5	127	17523	10.2	28.8	3.4	243	0.415
Wabamun 14-2	5-Aug-05	9.28	0.539	0.75	1.09	1674	0.44	1.71	32.6	37.1	6704	5.6	6.9	0.5	322	0.152
Wabamun 13-1	5-Aug-05	13.4	0.737	L2.85	1.56	1865	0.425	2.29	59.2	57.7	11774	8.17	15.8	0.98	357	0.18
Wabamun 12-3	5-Aug-05	21.9	2.2	3.07	6.3	2382	0.425	5.43	99.3	115	17666	10.7	30.3	3.4	221	0.429
Wabamun 12-1	5-Aug-05	21.8	1.81	2.67	5.96	2404	0.446	4.69	89.2	102	18192	9.3	26.4	2.87	226	0.343
Wabamun 10-3	5-Aug-05	22.6	2.39	3.41	6.72	2330	0.415	5.47	102	119	18035	10.3	30.6	3.9	212	0.42
Wabamun 8-3-A	5-Aug-05	22.6	2.32	3.13	6.19	2159	0.385	5.19	95.1	110	17269	9.71	30.1	3.78	186	0.387
Wabamun 17-1	16-Aug-05	19.3	1.01	2.41	7.15	1674	0.234	3.69	56	95	16131	6.9	15.6	2.6	323	0.294
Wabamun 14-6	16-Aug-05	23.6	2.17	3.7	7.5	1504	0.242	5.16	56.4	140	18375	7.98	25.8	2.5	213	0.41
Wabamun 14-2	16-Aug-05	11.9	0.783	1.11	4.46	1226	0.249	2.56	31.7	39.5	10845	5.69	11.1	1.29	432	0.175
Wabamun 12-1	16-Aug-05	21.3	1.83	2.55	3.94	1416	0.196	3.91	50.7	69.5	18738	5.67	14.4	2	177	0.345
Wabamun 10-3	16-Aug-05	22.9	2.61	2.89	8.25	1567	0.245	5.92	61	144	19763	9.86	31.1	2.8	181	0.416
Wabamun 8-3-A	16-Aug-05	25.1	3.36	3.23	7.87	1481	0.278	7.17	68.6	137	19659	9.58	30.3	2.9	174	0.489
Wabamun 2-3	16-Aug-05	27	3.23	2.43	7.04	1921	0.411	7.91	91.3	146	22898	8.33	28.1	4.6	184	0.46
Wabamun 4-3	16-Aug-05	27.7	2.77	2.61	7.97	1896	0.453	8.33	86.4	158	22791	9.7	34.7	4.42	194	0.52
Wabamun Nr Paul Band	16-Aug-05	5	0.228	0.371	1.26	685	0.147	0.685	14	14.7	3890	2.49	3.68	0.3	111	0.029

Appendix 6 Total (harsh extraction) and extractable (mild extraction) of metals in Wabamun Lake sediments (continued)

Sampling Site	Sample Date	103525 Silver Ext. µg/g	103526 Aluminum Ext. µg/g	103527 Arsenic Ext. µg/g	103528 Boron Ext. µg/g	103529 Barium Ext. µg/g	103530 Beryllium Ext. µg/g	103531 Bismuth Ext. µg/g	103532 Calcium Ext. µg/g	103534 Chlorine Ext. µg/g	103536 Chromium Ext. µg/g	103537 Copper Ext. µg/g	103540 Lithium Ext. µg/g	103542 Manganese Ext. µg/g	103543 Molybdenum Ext. µg/g	103550 Lead Ext. µg/g
Wabamun Moonlight Bay	4-Aug-05	0.055	3187	9.3	33.5	804	0.25	0.115	216548	6651	8.6	34.3	3.46	294	11.6	27.6
Wabamun 18-2	4-Aug-05	0.172	12794	13.4	34.3	316	0.67	0.188	82047	13241	26.2	178	9.1	491	3.06	16.5
Wabamun 17-1	4-Aug-05	0.153	12570	12.5	41	313	0.77	0.189	75577	9626	25.4	70.8	9.43	613	5.93	16.1
Wabamun 14-6	4-Aug-05	0.187	14911	15.5	50	261	0.85	0.233	47250	13633	30.8	108	11.2	569	4.49	20.4
Wabamun 14-2	5-Aug-05	0.063	4143	3.77	13	194	0.23	0.055	55777	4223	6.97	10.2	3.7	305	1.57	4.26
Wabamun 13-1	5-Aug-05	0.128	8300	8.38	29.2	365	0.52	0.132	100810	5425	13.4	21.7	6.84	773	2.34	10.5
Wabamun 12-3	5-Aug-05	0.17	15217	14.4	56.6	210	0.81	0.199	37326	11198	26.5	83.3	11.2	533	3.48	16.8
Wabamun 12-1	5-Aug-05	0.174	14286	13.7	46.6	237	0.74	0.203	47745	7920	27.1	80.7	10.6	542	4.7	18.7
Wabamun 10-3	5-Aug-05	0.17	15252	13.8	61	221	0.8	0.215	34633	12576	31.3	104	11.5	485	5.1	19.3
Wabamun 8-3-A	5-Aug-05	0.181	16300	14.9	75	222	0.75	0.216	29870	9046	33.7	111	12.3	505	6.28	19.8
Wabamun 17-1	16-Aug-05	0.164	16727	11	49.5	339	0.82	0.218	74252	2116	26.6	57.5	10.1	663	6.03	16.5
Wabamun 14-6	16-Aug-05	0.2	20016	16	61	282	0.86	0.28	52129	3343	36.5	110	12.9	633	5	21.5
Wabamun 14-2	16-Aug-05	0.108	7753	7.38	27.6	461	0.4	0.123	115096	3279	11.1	21.2	5.53	714	2.97	8.85
Wabamun 12-1	16-Aug-05	0.1	17666	7.2	30	143	0.4	0.141	25140	2718	16.2	41.6	6.3	572	2.53	10.7
Wabamun 10-3	16-Aug-05	0.157	14644	14.9	66	220	0.76	0.235	37015	3479	31.1	104	11.1	542	4.98	19.3
Wabamun 8-3-A	16-Aug-05	0.201	20023	18.5	87	246	0.92	0.285	31371	3757	42	136	14.8	434	7.7	23.7
Wabamun 2-3	16-Aug-05	0.178	17527	18.4	63	236	0.8	0.274	32190	7162	36.7	124	13.3	403	17.6	25.4
Wabamun 4-3	16-Aug-05	0.164	16847	18.2	68	209	0.78	0.26	30440	7444	36	131	12.6	368	19.6	22.8
Wabamun Nr Paul Band	16-Aug-05	0.0222	1801	1	6.6	52.5	0.1	0.0301	20809	1797	3.06	2.19	1.59	187	0.083	1.54

Appendix 6 Total (harsh extraction) and extractable (mild extraction) of metals in Wabamun Lake sediments (continued)

Sampling Site	Sample Date	103552 Antimony Ext. µg/g	103555 Tin Ext. µg/g	103557 Thorium Ext. µg/g	103558 Titanium Ext. µg/g	103559 Thallium Ext. µg/g	103560 Uranium Ext. µg/g	103561 Vanadium Ext. µg/g	103562 Zinc Ext. µg/g	103566 Iron Ext. µg/g	103567 Cobalt Ext. µg/g	103568 Nickel Ext. µg/g	103572 Selenium Ext. µg/g	103573 Strontium Ext. µg/g	103574 Cadmium Ext. µg/g
Wabamun Moonlight Bay	4-Aug-05	0.198	0.404	1.32	72	0.089	3.67	22.6	26.8	2811	1.41	4.4	1.2	736	0.19
Wabamun 18-2	4-Aug-05	0.082	1.49	2.36	80	0.199	2.32	38.1	136	11982	5.28	15	3.39	279	0.32
Wabamun 17-1	4-Aug-05	0.056	0.545	2.39	65	0.195	2.75	35.9	76.8	11257	5.41	16	2.39	260	0.293
Wabamun 14-6	4-Aug-05	0.103	0.399	5.19	65	0.223	3.84	44.5	99	13478	6.89	21.1	3.1	189	0.373
Wabamun 14-2	5-Aug-05	0.0213	0.149	0.87	59	0.193	1.03	10.4	27.9	4502	2.52	4.62	0.4	202	0.149
Wabamun 13-1	5-Aug-05	0.028	0.168	1.55	54	0.221	1.47	19.9	44.9	8988	5.02	11.9	0.96	361	0.16
Wabamun 12-3	5-Aug-05	0.113	0.33	4.84	66	0.212	3.83	41.4	87.4	13618	7.22	22.5	3.15	150	0.381
Wabamun 12-1	5-Aug-05	0.089	0.191	5.12	58	0.23	3.51	39.4	86	13376	7.01	21.9	2.8	180	0.343
Wabamun 10-3	5-Aug-05	0.12	0.3	5.16	67	0.218	4.28	47	94	13265	7.6	24	3.9	148	0.39
Wabamun 8-3-A	5-Aug-05	0.144	0.3	5.09	79	0.212	4.32	50.5	96	13040	7.99	26.1	3.7	150	0.38
Wabamun 17-1	16-Aug-05	0.065	0.443	6.39	100	0.224	3.17	38	69.1	12056	5.27	15.4	2	222	0.277
Wabamun 14-6	16-Aug-05	0.118	0.53	7.28	91	0.239	4.42	52	103	14326	7.28	21.8	2.1	189	0.392
Wabamun 14-2	16-Aug-05	0.042	0.193	4.06	57	0.189	1.88	17.3	35.9	7240	3.09	6.7	1.08	362	0.166
Wabamun 12-1	16-Aug-05	0.067	0.155	3.87	41	0.138	2.23	23.4	46.8	13709	3.77	11.8	1.8	92	0.192
Wabamun 10-3	16-Aug-05	0.138	0.159	5.78	65	0.209	4.85	46.1	95.9	13552	7.73	24	2.6	155	0.401
Wabamun 8-3-A	16-Aug-05	0.208	0.274	7.5	102	0.268	7	69	114	14253	9.1	29.3	2.8	155	0.46
Wabamun 2-3	16-Aug-05	0.211	0.201	6.37	85	0.287	7.35	60	112	18017	8.1	27.6	4.3	144	0.452
Wabamun 4-3	16-Aug-05	0.153	0.156	6.1	81	0.299	6.7	56	120	15883	8.1	27.5	3.3	140	0.47
Wabamun Nr Paul Band	16-Aug-05	0.0091	L0.086	1.18	34.9	0.042	0.304	4.84	9.2	2433	1.83	2.56	0.28	41.5	0.025

Appendix 7 Results of QA/QC Sampling

Much of the QA/QC sampling focussed on trace organics in water because these were of primary concern in regards to the spill.

1. Sequential Water Samples

Three sequential water samples taken on five occasions provide an indication of analytical and sampling precision, but potentially also incorporate some measure of short-term variability in water. These samples were analyzed mainly for EPP, although VPP and PAH were also analyzed in some samples (VPP: August 11, 15, and PAH: August 13). The variability in reported concentrations of sets of three samples was expressed as the coefficient of variability (CV = standard deviation expressed as a percent of the mean).

Results are presented in Table A7.1.

VPP Scan
VPP were not detected in any of the sequential groups of samples.

EPP Scan
Fluorene and phenanhrene were detected in the EPP scans from August 11; their coefficient of variation was 16.4% and 10.3%, respectively.

Phtalates such as n-butyl phthalate, diethyl phthalate, and bis(2-ethylhexyl)phthalate are part of the EPP scan and were detected in most ambient samples, including sediment and biota samples. CV's in sequential water samples were generally above 25%. Phthalates were also detected in field blanks and in trip blanks. The latter suggests that field and laboratory contamination may be involved. Because of this suspicion and the low relevance of phthalates in regards to the spill, phthalate data are not discussed in the data presentation. Phthalates represent a large group of compounds widely used as plasticizers in polyvinyl chloride resins, adhesives and cellulose film coating. Other applications are found in cosmetics, rubbing alcohol, insect repellent, insecticides, tablet coating and solid rocket propellants (CCREM 1987).

PAH Scan
Three sequential water samples were collected on September 13, 2005. The PAH scan was conducted on these samples. Benzo(E)pyrene (0.007 µg/L) and phenanthrene (0.004 µg/L) were reported at concentrations below the method detection limit (MDL<0.01 µg/L) in one sample. Inconsistent detections can be expected when reported concentrations are below the method detection limit (i.e., value at which the lab can reliably quantify compounds).

2. Field and Trip Blanks

One trip blank and three field blanks were for VPPs and EPPs. With the exception of phthalates mentioned above, no compounds were detected.

3. Comparison of PAHs Detected in the EPP and PAH Scans of Lake Water

The EPP scan has detection limits of 0.1 µg/L or higher for PAH's. Because Wabamun Lake water is fairly clean of organic material that interferes with extractions or interpretation of analytical results, the analytical laboratory was able to report PAHs at lower detection limits. However, to verify that the EPP scan was actually capturing relevant PAH, the detailed PAH scan with detection limits of 0.01 µg/L was applied to five samples (August 11, three sites and August 16, two sites; Appendix 2).

Acridine, acenaphthene, acenaphthylene, fluorene, naphthalene and phenanthrene were reported in the PAH scan. In all instances concentrations were below the MDL for the EPP scan and in some cases they were also below the MDL for the PAH scan. Detections of PAH would not be expected in the EPP scan under such circumstances. However, phenanthrene and fluorene were reported in both the PAH and the EPP scan of 18-2-site 1 (August 11) at similar concentrations (fluorene – PAH scan: 0.016 µg/L; EPP scan: 0.011 µg/L and phenanthrene – PAH scan: 0.046 µg/L; EPP scan: 0.038 µg/L). These results tend to indicate that the EPP scan was adequate to represent PAHs in Wabamun Lake water, although, as expected, the PAH scan provides more detailed information for lower concentration ranges. Acridine, detected in Wabamun Lake at very low levels in the PAH scan, does not appear on the EPP scan. Wabamun Lake samples were not heavily contaminated and there was little interference that would have masked low levels of acridine had it been present at or above the MDLs for this scan (Grant Prill, personal communication).

4. Results of Analyses of Split Sediment Samples

Split sediment samples were analyzed on one occasion for PAH and EPP. Results are shown in Table A7.2.

The VPP scan yielded no detections, but low levels of phenanthrene were detected in the three split samples and at similar concentrations (CV: 13.3%). Acenaphthene, fluorene, pyrene, and retene were reported in one or two of the triplicates and concentrations were at, or below the method detection limit.

Table A7.1 Trace organic analyses in water

		Volatile Priority Pollutants													
Sample Description	Sample Date/Time	100397 TRI HALO METH ANES µg/L	100407 XYL ENE µg/L	100634 BROM OBEN ZENE µg/L	100635 SEC-BUTYL BENZ ENE µg/L	100636 TERT-BUTYL BENZ ENE µg/L	100637 N-BUTYL BENZ ENE µg/L	100638 2-CHLOR OTOLU ENE µg/L	100639 4-CHLOR OTOLU ENE µg/L	100640 1,2-DI BROM O-3-CHL OROPR OPANE µg/L	100641 1,2-DI BROM OETH ANE µg/L	100642 CIS-1, 2-DI CHLOR OETH ENE µg/L	100643 2,2-DI CHLOR OPRO PANE µg/L	100644 1,3-DI CHLOR OPRO PANE µg/L	100645 1,1-DI CHLOR OPRO PYL ENE µg/L
Samples taken sequentially															
Wabamun East 18-2 (VPP, EPP and PAH)	11-Aug-05 18:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05 18:50	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05 18:55	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Wabamun Lk nr Paul Band (EPP)	23-Aug-05 15:15	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05 15:20														
Sequential 2 (EPP)	23-Aug-05 15:25														
coefficient of variation															
Wabamun Lk nr Paul Band(EPP)	30-Aug-05 15:40	L0.1	0.12	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	30-Aug-05 15:45														
Sequential 2(EPP)	30-Aug-05 15:50														
coefffcient of variation															
Wabamun nr Paul Band (EPP)	07-Sep-05 14:05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	07-Sep-05 14:10														
Sequential 2 (EPP)	07-Sep-05 14:15														
coefficient of variation															
Wabamun East 10-3 (VPP and EPP)	15-Sep-05 13:30	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05 13:35	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05 13:40	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Sequential samples taken by Golder															
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05 10:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05 10:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05 10:20	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Blanks															
Wabamun 30-2 trip blank (EPP)	11-Aug-05 20:15														
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05 20:05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05 20:00	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05 13:45	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

		Volatile Priority Pollutants														
Sample Description	Sample Date	100646 HEXA CHLORO BUTA DIENE µg/L	100647 ISO PROP YLBEN ZENE µg/L	100648 P-ISO PROP YLTOL UENE µg/L	100649 NAPH THAL ENE µg/L	100650 N-PROP YLBEN ZENE µg/L	100651 1,1,1,2-TETRA CHLOR OETH ANE µg/L	100652 1,2,3-TRI CHLOR OBEN ZENE µg/L	100653 1,2,4-TRI CHLOR OBEN ZENE µg/L	100654 TRI CHLOR OETHY LENE µg/L	100655 1,2,3-TRI CHLOR OPRO PANE µg/L	100656 1,2,4-TRI METHY LBEN ZENE µg/L	100657 1,3,5-TRI METH YLBEN ZENE µg/L	95200 BENZ ENE µg/L	95201 DICHL ORO BROM OMET HANE µg/L	95202 BRO MO FORM µg/L
Samples taken sequentially																
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 1 (VPP and EPP)	11-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 2 (VPP and EPP)	11-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
coefficient of variation																
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 1 (EPP)	23-Aug-05															
Sequential 2 (EPP)	23-Aug-05															
coefficient of variation																
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 1(EPP)	30-Aug-05															
Sequential 2(EPP)	30-Aug-05															
coefficient of variation																
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 1(EPP)	7-Sep-05															
Sequential 2 (EPP)	7-Sep-05															
coefficient of variation																
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 1(VPP and EPP)	15-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Sequential 2(VPP and EPP)	15-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
coefficient of variation																
Sequential samples taken by Golder																
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
coefficient of variation																
Blanks																
Wabamun 30-2 trip blank (EPP)	11-Aug-05															
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.3	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.5

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	Volatile Priority Pollutants														
		95203 BROMOMETHANE µg/L	95204 CARBON TETRACHLORIDE µg/L	95205 CHLOROBENZENE µg/L	95206 CHLOROETHANE µg/L	95207 2-CHLOROETHYL VINYL ETHER (2-CHLOROETHOXYETHYLENE) µg/L	95208 CHLOROFORM µg/L	95209 DIBROMOCHLOROMETHANE µg/L	95210 DIBROMOMETHANE µg/L	95211 1,2-DICHLOROBENZENE µg/L	95212 1,3-DICHLOROBENZENE µg/L	95213 1,4-DICHLOROBENZENE µg/L	95214 1,1-DICHLOROETHANE µg/L	95215 1,2-DICHLOROETHANE µg/L	95216 1,1-DICHLOROETHYLENE µg/L	95217 TRANS-1,2-DICHLOROETHENE µg/L
Samples taken sequentially																
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation																
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05															
Sequential 2 (EPP)	23-Aug-05															
coefficient of variation																
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	30-Aug-05															
Sequential 2(EPP)	30-Aug-05															
coefficient of variation																
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	7-Sep-05															
Sequential 2 (EPP)	7-Sep-05															
coefficient of variation																
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation																
Sequential samples taken by Golder																
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation																
Blanks																
Wabamun 30-2 trip blank (EPP)	11-Aug-05															
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.4	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

		Volatile Priority Pollutants														
Sample Description	Sample Date	95218 1,2-DICHLOROPROPANE µg/L	95219 CIS-1,3-DICHLOROPROPENE µg/L	95220 TRANS-1,3-DICHLOROPROPENE µg/L	95221 ETHYLBENZENE µg/L	95222 METHYLENE CHLORIDE µg/L	95223 STYRENE µg/L	95224 1,1,2,2-TETRACHLOROETHANE µg/L	95225 TETRACHLOROETHYLENE µg/L	95226 TOLUENE µg/L	95227 1,1,1-TRICHLOROETHANE µg/L	95228 1,1,2-TRICHLOROETHANE µg/L	95229 TRICHLOROFLUOROMETHANE µg/L	95232 VINYL CHLORIDE µg/L	95233 O-XYLENE µg/L	95234 M- + P-XYLENE µg/L
Samples taken sequentially																
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
coefficient of variation																
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	0.098	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05															
Sequential 2 (EPP)	23-Aug-05															
coefficient of variation																
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.3	L0.3	0.03	L2	L0.1	L0.1	L0.3	0.417	L0.1	L0.1	L0.1	L0.5	L0.1	0.12
Sequential 1(EPP)	30-Aug-05															
Sequential 2(EPP)	30-Aug-05															
coefficient of variation																
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 1(EPP)	7-Sep-05															
Sequential 2 (EPP)	7-Sep-05															
coefficient of variation																
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
coefficient of variation																
Sequential samples taken by Golder																
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
coefficient of variation																
Blanks																
Wabamun 30-2 trip blank (EPP)	11-Aug-05															
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.3	L0.3	L0.1	L2	L0.1	L0.1	L0.3	L0.1	L0.1	L0.1	L0.1	L0.5	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	Extractable Priority Pollutants												
		100698 4-CHLORO-3-METHYL PHENOL µg/L	100699 2-CHLORO PHENOL µg/L	100700 2,4-DICHLORO PHENOL µg/L	100701 2,4-DIMETHYL PHENOL µg/L	100702 2-METHYL-4,6-DINITROPHENOL µg/L	100703 2,4-DINITRO PHENOL µg/L	100704 2-NITRO PHENOL µg/L	100705 4-NITRO PHENOL µg/L	100706 PENTACHLOROPHENOL µg/L	100707 PHENOL µg/L	100708 2,4,6-TRICHLOROPHENOL µg/L	100709 ACENAPHTHENE µg/L	100710 ACENAPHTHYLENE µg/L
Samples taken sequentially														
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (EPP)	23-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(EPP)	30-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (EPP)	7-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Sequential samples taken by Golder														
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Blanks														
Wabamun 30-2 trip blank (EPP)	11-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.2	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	Extractable Priority Pollutants													
		100711 ANTHRACENE µg/L	100712 BENZO(A)ANTHRACENE µg/L	100713 BENZO(B)FLUORANTHENE µg/L	100714 BENZO(K)FLUORANTHENE µg/L	100715 BENZO(G,H,I)PERYLENE µg/L	100716 BENZO(A)PYRENE µg/L	100717 CHRYSENE µg/L	100718 DIBENZO(A,H)ANTHRACENE µg/L	100719 FLUORANTHENE µg/L	100720 FLUORENE µg/L	100721 INDENO(1,2,3-C,D)PYRENE µg/L	100722 NAPHTHALENE µg/L	100723 PHENANTHRENE µg/L	100724 PYRENE µg/L
Samples taken sequentially															
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	0.011	L0.1	L0.1	0.038	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	0.009	L0.1	L0.1	0.036	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	0.008	L0.1	L0.1	0.031	L0.1
coefficient of variation											*16.4*			*10.3*	
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2 (EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Sequential samples taken by Golder															
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation															
Blanks															
Wabamun 30-2 trip blank (EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1	L0.1	L0.5	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	Extractable Priority Pollutants													
		100725 2-CHLORONAPHTHALENE µg/L	100726 HEXACHLOROBENZENE µg/L	100727 HEXACHLOROBUTADIENE µg/L	100728 HEXACHLOROCYCLOPENTADIENE µg/L	100729 HEXACHLOROETHANE µg/L	100730 1,2,4-TRICHLOROBENZENE µg/L	100731 BENZIDINE µg/L	100732 2,4-DINITROTOLUENE µg/L	100733 2,6-DINITROTOLUENE µg/L	100734 1,2-DIPHENYLHYDRAZINE µg/L	100735 NITROBENZENE µg/L	100736 N-NITROSODIPHENYLAMINE µg/L	100737 N-NITROSO-DI-N-PROPYLAMINE µg/L	100738 4-BROMOPHENYL PHENYL ETHER µg/L
Samples taken sequentially															
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 1 (EPP)	23-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 2 (EPP)	23-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 1(EPP)	30-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 2(EPP)	30-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 1(EPP)	7-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 2 (EPP)	7-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Sequential samples taken by Golder															
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
coefficient of variation															
Blanks															
Wabamun 30-2 trip blank (EPP)	11-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.5	L0.1	L0.5	L0.1	L0.2	L0.1	L0.1	L0.1	L0.1	L0.1	L0.2	L0.1

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	Extractable Priority Pollutants												
		100739 BIS(2-CHLOROETHOXY) METHANE µg/L	100740 BIS(2-CHLOROETHYL) ETHER µg/L	100741 BIS(2-CHLOROISOPROPYL) ETHER µg/L	100742 4-CHLOROPHENYL PHENYL ETHER µg/L	100743 BUTYL BENZYL PHTHALATE µg/L	100744 DI-N-BUTYL PHTHALATE µg/L	100745 DIETHYL PHTHALATE µg/L	100746 DIMETHYL PHTHALATE µg/L	100747 DI-N-OCTYL PHTHALATE µg/L	100748 BIS(2-ETHYLHEXYL) PHTHALATE µg/L	100749 ISOPHORONE µg/L	102608 MTBE (METHYL TERTIARY BUTYL ETHER) µg/L	103632 2,3,4,6-TETRACHLOROPHENOL µg/L
Samples taken sequentially														
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.171	0.22	L0.1	L0.1	2.75	L0.1	L0.1	L0.1
Sequential 1 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.251	0.365	L0.1	L0.1	4.16	L0.1	L0.1	L0.1
Sequential 2 (VPP and EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.219	0.302	L0.1	L0.1	1.33	L0.1	L0.1	L0.1
coefficient of variation							*18.8*	*24.6*			*51.5*			
Wabamun Lk nr Paul Band (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.125	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1 (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.188	0.077	L0.1	L0.1	1.76	L0.1		L0.1
Sequential 2 (EPP)	23-Aug-05	L0.1	L0.1	L0.1	L0.1	0.07	0.225	L0.1	L0.1	L0.1	L0.1	L0.1		L0.1
coefficient of variation							*28.2*							
Wabamun Lk nr Paul Band(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.345	0.123	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	0.074	0.373	L0.1	L0.1	L0.1	L0.1	L0.1		L0.1
Sequential 2(EPP)	30-Aug-05	L0.1	L0.1	L0.1	L0.1	0.195	1.8	0.255	L0.1	L0.1	L0.1	L0.1		L0.1
coefficient of variation							*99.1*	*49.4*						
Wabamun nr Paul Band (EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1		L0.1
Sequential 2 (EPP)	7-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1		L0.1
coefficient of variation														
Wabamun East 10-3 (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.151	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 1(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Sequential 2(VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.154	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation								*1.4*						
Sequential samples taken by Golder														
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
coefficient of variation														
Blanks														
Wabamun 30-2 trip blank (EPP)	11-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	0.151	0.137	L0.1	L0.1	4.57	L0.1		L0.1
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.256	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.144	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1	0.212	L0.1	L0.1	L0.1	L0.1	L0.1	L0.1

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	PAH													
		103142 3-METHYL CHOLANTHRENE µg/L	103143 7,12-DIMETHYLBENZ(A)ANTHRACENE µg/L	103144 ACENAPHTHENE µg/L	103145 ACENAPHTHYLENE µg/L	103146 ACRIDINE µg/L	103147 ANTHRACENE µg/L	103148 BENZO(A)ANTHRACENE µg/L	103149 BENZO(A)PYRENE µg/L	103150 BENZO(B,J,K)FLUORANTHENE µg/L	103151 BENZO(C)PHENANTHRENE µg/L	103152 BENZO(E)PYRENE µg/L	103153 BENZO(G,H,I)PERYLENE µg/L	103154 CHRYSENE µg/L	103155 DIBENZO(A,H)PYRENE µg/L
Samples taken sequentially															
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.01	L0.01	0.007	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Sequential 1 (VPP and EPP)	11-Aug-05														
Sequential 2 (VPP and EPP)	11-Aug-05														
coefficient of variation															
Wabamun Lk nr Paul Band (EPP)	23-Aug-05														
Sequential 1 (EPP)	23-Aug-05														
Sequential 2 (EPP)	23-Aug-05														
coefficient of variation															
Wabamun Lk nr Paul Band(EPP)	30-Aug-05														
Sequential 1(EPP)	30-Aug-05														
Sequential 2(EPP)	30-Aug-05														
coefficient of variation															
Wabamun nr Paul Band (EPP)	7-Sep-05														
Sequential 1(EPP)	7-Sep-05														
Sequential 2 (EPP)	7-Sep-05														
coefficient of variation															
Wabamun East 10-3 (VPP and EPP)	15-Sep-05														
Sequential 1(VPP and EPP)	15-Sep-05														
Sequential 2(VPP and EPP)	15-Sep-05														
coefficient of variation															
Sequential samples taken by Golder															
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	0.007	L0.01	L0.01	L0.01
coefficient of variation															
Blanks															
Wabamun 30-2 trip blank (EPP)	11-Aug-05														
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05														
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05														
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05														

Table A7.1 Trace organic analyses in water (continued)

Sample Description	Sample Date	PAH										
		103156 DIBENZO(A,I)PYRENE µg/L	103157 DIBENZO(A,L)PYRENE µg/L	103158 DIBENZO(A,H)ANTHRACENE µg/L	103159 FLUORANTHENE µg/L	103160 FLUORENE µg/L	103161 INDENO(1,2,3-C,D)PYRENE µg/L	103162 NAPHTHALENE µg/L	103163 PHENANTHRENE µg/L	103164 PYRENE µg/L	103632 2,3,4,6-TETRACHLOROPHENOL µg/L	103761 RETENE (7-ISOPROPYL-1-METHYLPHENANTHRENE) µg/L
Samples taken sequentially												
Wabamun East 18-2 (VPP and EPP)	11-Aug-05	L0.01	L0.01	L0.01	L0.01	0.016	L0.01	0.006	0.043	L0.01	L0.1	L0.01
Sequential 1 (VPP and EPP)	11-Aug-05										L0.1	
Sequential 2 (VPP and EPP)	11-Aug-05										L0.1	
coefficient of variation												
Wabamun Lk nr Paul Band (EPP)	23-Aug-05										L0.1	
Sequential 1 (EPP)	23-Aug-05										L0.1	
Sequential 2 (EPP)	23-Aug-05										L0.1	
coefficient of variation												
Wabamun Lk nr Paul Band(EPP)	30-Aug-05										L0.1	
Sequential 1(EPP)	30-Aug-05										L0.1	
Sequential 2(EPP)	30-Aug-05										L0.1	
coefficient of variation												
Wabamun nr Paul Band (EPP)	7-Sep-05										L0.1	
Sequential 1(EPP)	7-Sep-05										L0.1	
Sequential 2 (EPP)	7-Sep-05										L0.1	
coefficient of variation												
Wabamun East 10-3 (VPP and EPP)	15-Sep-05										L0.1	
Sequential 1(VPP and EPP)	15-Sep-05										L0.1	
Sequential 2(VPP and EPP)	15-Sep-05										L0.1	
coefficient of variation												
Sequential samples taken by Golder												
Wabamun S1-SA (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.1	L0.01
Wabamun S1-SB (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	0.004	L0.01	L0.1	L0.01
Wabamun S1-SC (VPP, EPP and PAH)	13-Sep-05	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.01	L0.1	L0.01
coefficient of variation												
Blanks												
Wabamun 30-2 trip blank (EPP)	11-Aug-05										L0.1	
Wabamun LK 40-2 trip blank (VPP and EPP)	16-Aug-05										L0.1	
Wabamun LK 40-1 field blank (VPP and EPP)	16-Aug-05										L0.1	
Wabamun 10-3-C = field blank (VPP and EPP)	15-Sep-05										L0.1	

Table A7.2 Results of QA/QC on Trace Organic Contaminants in Sediments

Sampling Site	Sample Date	10535 ACENAPHTHYLENE ng/g	10536 ACENAPHTHENE ng/g	10537 FLUORENE ng/g	10538 PHENANTHRENE ng/g	10539 ANTHRACENE ng/g	10540 ACRIDINE ng/g	10541 PYRENE ng/g	10542 FLUORANTHENE ng/g	10543 RETENE (7-ISOPROPYL-1-METHYLPHENANTHRENE) ng/g
Split samples collected by Golder										
SITE 1 REP 1	2-Oct-05	L1	L1	0 HX	4	L1	L1	0 HX	L1	L1
SITE 1 REP 2	2-Oct-05	L1	L1	1 HX	4	L1	L1	1 HX	L1	1 HX
SITE 1 REP 3	2-Oct-05	L1	0 HX	1 HX	5	L1	L1	1 HX	L1	0 HX
coefficient of variation					13.3					
		10544 BENZO(C)PHENANTHRENE ng/g	10545 BENZO(A)ANTHRACENE ng/g	10546 CHRYSENE g/g	10547 BENZO(B,J,K)FLUORANTHENE ng/g	10548 7,12-DIMETHYLBENZ(A)ANTHRACENE ng/g	10549 BENZO(E)PYRENE ng/g	10550 BENZO(A)PYRENE ng/g	10553 3-METHYLCHOLANTHRENE ng/g	10554 INDENO(1,2,3-C,D)PYRENE ng/g
SITE 1 REP 1	2-Oct-05	L1	L1	L1	L1	L1	L1	L1	L1	L1
SITE 1 REP 2	2-Oct-05	L1	L1	L1	L1	L1	L1	L1	L1	L1
SITE 1 REP 3	2-Oct-05	L1	L1	L1	L1	L1	L1	L1	L1	L1
		10555 DIBENZO(A,H)ANTHRACENE ng/g	10556 BENZO(G,H,I)PERYLENE g/g	10557 DIBENZO(A,L)PYRENE ng/g	10558 DIBENZO(A,I)PYRENE ng/g	10559 DIBENZO(A,H)PYRENE µg/g	80427 1,2,4-TRICHLOROBENZENE µg/g	80428 1,2-DIPHENYLHYDRAZINE µg/g	80429 2,3,4,6-TETRACHLOROPHENOL µg/g	80430 2,4,6-TRICHLOROPHENOL µg/g
SITE 1 REP 1	2-Oct-05	L1	L1	L1	L1	L1	L2	L2	L2	L2
SITE 1 REP 2	2-Oct-05	L1	L1	L1	L1	L1	L2	L2	L2	L2
SITE 1 REP 3	2-Oct-05	L1	L1	L1	L1	L1	L2	L2	L2	L2
		80431 2,4-DICHLOROPHENOL µg/g	80432 2,4-DIMETHYLPHENOL µg/g	80433 2,4-DINITROPHENOL µg/g	80434 2,4-DINITROTOLUENE µg/g	80435 2,6-DINITROTOLUENE µg/g	80436 2-CHLORONAPHTHALENE µg/g	80437 2-CHLOROPHENOL µg/g	80438 2-METHYL-4,6-DINITROPHENOL µg/g	80439 2-NITROPHENOL µg/g
SITE 1 REP 1	2-Oct-05	L2	L4	L2	L2	L2	L2	L2	L2	L2
SITE 1 REP 2	2-Oct-05	L2	L4	L2	L2	L2	L2	L2	L2	L2
SITE 1 REP 3	2-Oct-05	L2	L4	L2	L2	L2	L2	L2	L2	L2
		80440 4-BROMOPHENYLPHENYLETHER µg/g	80441 4-CHLORO-3-METHYLPHENOL µg/g	80442 4-CHLOROPHENYLPHENYLETHER µg/g	80443 4-NITROPHENOL µg/g	80444 ACENAPHTHENE µg/g	80445 ACENAPHTHYLENE µg/g	80446 ANTHRACENE µg/g	80447 BENZIDINE µg/g	80448 BENZO(A)ANTHRACENE µg/g
SITE 1 REP 1	2-Oct-05	L2	L2	L2	L2	L2	L2	L2	L4	L2
SITE 1 REP 2	2-Oct-05	L2	L2	L2	L2	L2	L2	L2	L4	L2
SITE 1 REP 3	2-Oct-05	L2	L2	L2	L2	L2	L2	L2	L4	L2

Table A7.2 Results of QA/QC on Trace Organic Contaminants in Sediments (continued)

Sampling Site	Sample Date	80449 BENZO(A) PYRENE µg/g	80450 BENZO(B) FLUOR ANTHENE µg/g	80451 BENZO (G,H,I) PERY LENE µg/g	80452 BENZO(K) FLUOR ANTHENE µg/g	80453 BIS(2-CHLORO ETHOXY) METHANE µg/g	80454 BIS(2-CHLORO ETHYL) ETHER µg/g	80455 BIS(2-CHLORO ISO PROPYL) ETHER µg/g	80456 BIS(2-ETHYL HEXYL) PHTH ALATE µg/g	80457 BUTYL BENZYL PHTH ALATE µg/g
SITE 1 REP 1	2-Oct-05	L2	L2	L4	L2	L2	L2	L2	L2	L2
SITE 1 REP 2	2-Oct-05	L2	L2	L4	L2	L2	L2	L2	L2	L2
SITE 1 REP 3	2-Oct-05	L2	L2	L4	L2	L2	L2	L2	L2	L2
		80458 CHRY SENE µg/g	80459 DI-N-BUTYL PHTH ALATE µg/g	80460 DI-N-OCTYL PHTH ALATE µg/g	80461 DIBENZO (A,H)AN THRA CENE µg/g	80462 DIETHYL PHTHA LATE µg/g	80463 DIMETHYL PHTHA LATE µg/g	80464 FLUOR ANTH ENE µg/g	80465 FLUO RENE µg/g	80466 HEXA CHLORO BENZENE µg/g
SITE 1 REP 1	2-Oct-05	L2	L2	L2	L5	L2	L2	L2	L2	L2
SITE 1 REP 2	2-Oct-05	L2	L2	L2	L5	L2	L2	L2	L2	L2
SITE 1 REP 3	2-Oct-05	L2	L2	L2	L5	L2	L2	L2	L2	L2
		80467 HEXA CHLORO BUTA DIENE µg/g	80468 HEXA CHLORO CYCLO PENTA DIENE µg/g	80469 HEXA CHLORO ETHANE µg/g	80470 INDENO (1,2,3-C,D) PYRENE µg/g	80471 ISOPHO RONE µg/g	80472 N-NITRO SO-DI-N-PROPYL AMINE µg/g	80473 N-NITRO SODI PHENYL AMINE µg/g	80474 NAPH THA LENE µg/g	80475 NITRO BENZ ENE µg/g
SITE 1 REP 1	2-Oct-05	L5	L2	L2	L2	L2	L4	L2	L2	L2
SITE 1 REP 2	2-Oct-05	L5	L2	L2	L2	L2	L4	L2	L2	L2
SITE 1 REP 3	2-Oct-05	L5	L2	L2	L2	L2	L4	L2	L2	L2
		80476 PENTA CHLORO PHENOL µg/g	80477 PHEN ANTH RENE µg/g	80478 PHENOL µg/g	80479 PYRENE µg/g					
SITE 1 REP 1	2-Oct-05	L2	L2	L2	L2					
SITE 1 REP 2	2-Oct-05	L2	L2	L2	L2					
SITE 1 REP 3	2-Oct-05	L2	L2	L2	L2					